

THE BATTLE CREEK IDEA

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A GREAT CENTER OF SCIENTIFIC HEALING

How the Sanitarium Maintains Its Prestige as the Workshop of Physiologic Medicine

THE Battle Creek Sanitarium was a pioneer in the system of managing chronic invalids by scientific training under conditions

QUESTION BOX DEPARTMENT

EACH Monday evening Dr. Kellogg conducts a Question Box talk in the Sanitarium parlor, where all guests and patients are at liberty to submit questions relating to health and health topics.

Q. How may one who is low in white cells, but nearly normal for red cells, increase the white cells?

COGENT ARGUMENTS AGAINST FLESH FOOD

Given by Dr. J. H. Kellogg in a Recent Lecture before the Sanitarium Patients and Guests

I HAVE been asked to state my objections to the use of flesh for food. There are several objections to meat eating. I shall en-



THE BATTLE CREEK SANITARIUM IN 1884

made the most favorable possible for tissue change and constitutional renovation.

There was naturally much prejudice and misconception to be overcome, especially at the beginning, but the conquests of the physiological laboratory and the findings of clinical experience based thereon, have placed this modern therapeutic method, the culmination of ages of experience and research, upon a sure foundation.

Physiologic medicine has come to stay. It is now recognized that the sanitarium, with its scientifically appointed laboratories, is

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A. The thing *not* to do is to eat beefsteak. The idea that one must eat meat in order to get blood has been long ago exploded. Professor Strauss, of Berlin, in a lecture a couple of years ago, said to his students, "If you have a real bad case of anemia, don't give him beefsteak; give him a vegetarian diet. Somehow they get well; I don't know just why it is, but I know they get well on a vegetarian diet; but if you feed them beef they will die." A few years ago it was believed that a man suffering from diabetes must eat meat. But Doctor Crofton, of Chi-

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deaver to put some of them into a concise statement. In the first place, meat was never intended to be eaten. Some things were made to be eaten and some things were made to eat the things that were to be eaten. An eater should not be an eatable; an eatable should not be an eater. It would be impossible to conceive of eatables upon the table suddenly turning upon the eaters, and consuming them or consuming one another. Is it not just as absurd that the eaters should make eatables out of other eaters, or that the guests should turn about and devour one another? That is exactly what Ovid said in *Metamorphoses* the-

ries and philosophy of Pythagoras two thousand years ago. In writing about the views of Pythagoras concerning eating animals, he said:

"If men with fleshy morsels must be fed,
And chaw with bloody teeth the breathing bread,
What else is this but to devour our guests,
And barb'rously renew Cyclopean feasts?"

Vegetables, or natural eatables, are endowed by nature with the power to gather in from the air and from the earth, material and to organize it into living substance in which energy is stored. Take the electric light, for instance. The energy of the sunlight is stored up in it. We see shining out from these electric lights resuscitated sunlight that came down from the skies hundreds of years ago, and was captured by living plants, and was mysteriously organized, or captured and stored up in living forms,—great ferns, great trees and forests. These forests were somehow laid low, and covered up under the earth, and under the influence of heat and pressure were by and by converted into coal. And we bring the coal out, burn it, and make steam that turns an engine, and the engine turns a dynamo which produces this electrical current, and here we see this same sunlight shining out again. Now, in this wonderful process of plant growth, the energy of the sunlight is stored up, the same heat and light that went into a potato can be brought out again; and when we eat the potato we find the heat, the energy in the potato, appearing as the heat and energy of our bodies.

EATING SUNSHINE

Food is fuel; and eating is the process by which we utilize the energy, which is derived from the source of nearly all the energy on earth, and this sun energy is what sustains our vitality. The waterfall is operated by sunlight. The heat of the sun raises water by evaporation, and forms clouds, and the clouds float inland until they reach a mountain peak, when the water is precipitated, and it flows down the mountain side. The man puts a wheel in the current and the wheel turns the mill, so the water-wheels and mills are turned by the sunlight. The sun at the equator warms the air; it arises and flows out toward the poles, and the air from the poles flows back along the surface of the earth, being cold, and the man puts up a wheel in the air and the wind turns that wheel. The coal and the petroleum are sunlight stored up in the earth; these are burned in furnaces, and make steam, which turns engines; so all machinery is turned by the sunlight.

And the very same thing is true of animal energy. The farmer plants corn, and the corn, under the influence of the sunlight, is made to grow and multiply; he feeds it to his horses, and the horses expend the energy from the sunlight through their muscles in pulling heavy loads. Horse energy comes from the sun; and the very same thing is true of our muscular energy, our brain, and nerve energy; it all comes from the sun through the medium of food. The order of Nature is that the vegetable world stores up the sunlight,—and that the animal world

utilizes the energy. A locomotive or a stationary steam engine is a means for utilizing stored energy. An animal is a means of utilizing stored energy. Sunlight stored up in petroleum shines out again when the lamp is lighted. The vegetable world is the chief means by which energy is stored. It is the world's magnificent storehouse of energy. The animal world is a means of using this energy.

CLOGGING THE GRATES

Suppose a man who finds the fire in his furnace getting low, gathers up all the kerosene lamps in the house and throws them into the furnace. There is a little oil left in those lamps, so they replenish the fire a little; but the furnace will be choked by the glass. Although there is some fuel in the lamps, there is a great deal that is not fuel. What would you think of a locomotive fireman who finds his coal getting low and stops at a station, seizes the station stove, and thrusts it into the furnace under the boiler? There is a little coal in the stove that has not been burned yet, which might furnish a little fuel. Now that is exactly what a man does when he eats another animal. Man is a machine for using energy, and not for storing it. He may allow the sunshine to shine upon him for a year, or five years, but he can not store up the sunshine. The vegetable world has the power, and has in its chlorophyll, or coloring matter, a marvelous means that has been provided for capturing the sunshine and storing it up. An animal can store a little energy in the form of fat, but its function is to expend energy.

Of course, if we shut a pig up in a pen and feed him twice as much food as he ought to have, he can accumulate fat, and in that way store energy; but he does not store it from the sunshine. He simply eats the corn, which becomes a part of his anatomy; then a man eats the pig, and gets the corn at second-hand in a deteriorated state. The pig has had the use of that corn before the man got it, and he gets the best of it, polluting it in various ways, and the man only gets what is left after the pig is done with it. The sweet, beautiful corn that heaven made contains the pure sunshine designed for our use; but why should we let the pig get it first and get all he can out of it, then we take what is left after the pig is through with it?—there is no philosophy in that, my friends. Sound philosophy would lead us to take things at first hand. That ear of corn that God made all pure and sweet for us,—how much better it is to get it in its pristine purity than to swallow that same ear of corn, or what is left of it, after the pig has swallowed it and wallowed it around in the mud for six months! It is not improved by the process.

I was passing along a street in London some years ago, and noticed a sign, "Second-hand teeth." I found out afterwards that these teeth were sold to people who manufacture plates, and then other people would buy them and use them. By and by I came to the hotel, and as I looked over the bill of fare, one of the first things I saw was "Calves' brains"! A man sitting next to me ordered some, and as I looked at him I

thought, that is just what he needs—brains. But as he was eating I was thinking about those second-hand teeth, and it was a disquieting notion. When I saw this man eating the brains of another animal, it seemed to me a horrible thing to do. To wear second-hand teeth wouldn't be anything serious at all compared with undertaking to make one's brains out of those of another animal; the idea struck me as being most repulsive. Then the rest of the menu came along,—pork, tripe, liver, kidney,—and all kinds of second-hand things on the bill of fare, and I was very glad I had learned better than to eat any of them.

FLESH FOOD IS UNNATURAL

There is another very serious objection to the use of flesh food. One can not possibly live on a meat diet and live naturally. Nature is a marvelous caterer, gatherer, for us of all that we need. In a kernel of corn, or of wheat, or any food which is made in the laboratory of nature, there are the carbohydrates, the protein, and the fat, the first to make energy and heat, and the protein to nourish the muscles and the brain, and nerves, and the fat which goes to build up the fatty tissues of the body, to furnish warmth and energy, and there are the different kinds of salts,—the phosphates and carbonates, the lime, magnesia, and various other salts which are necessary for the building of our bodies. Everything that the animal needs is there. Whether the man eats it or the ox eats it, the same thing happens, it is converted into blood and so circulates through the body, and each tissue, as the blood comes along, takes out what it requires. The muscle takes out the protein; the adipose tissue is replenished by the fat, the bones take out the lime.

When one eats beefsteak there may be some fat, but the lime isn't there, that is in the bones of the ox. But lime is absolutely essential for the building of the bones. Not so very long ago one of the eminent London surgeons was called to the "Zoo" to see what was the matter with the lions. There was great mortality among the infant lions. Doctor Treves found out what was the matter right away. "Why," he said, "your lions here aren't getting lime enough. You are feeding them on lean meat, and they do not get lime. Grind up a whole lot of bones and feed them, and they will be all right." The authorities did that and the lions thrived. That is what is the matter with the American babies, why they have deformities, rickets, and so on,—because we are undertaking to live on an imperfect, unnatural diet. The beefsteak diet of the American people is starving them of material with which to make their bones. This is a fact that any physiologist will confirm; and there is no possibility of getting away from it. If we are to eat the flesh of animals, we must eat the bones as well, in order to get back all of the original corn. In other words, we must eat the whole hog or none. So you see it is absolutely unnatural and unphysiologic for a human being, made for an entirely different kind of dietary, to undertake to subsist on this unnatural bill of fare to which carnivorous animals alone are

adapted. Man is the masterpiece of creation, and since he is the king of the earth, he deems it his privilege to eat everything in sight.

WHAT SHALL WE DO WITH THE ANIMALS?

I have been many times asked this question, "If we do not eat the animals, what shall we do with them?" Just think of that proposition! As if there is nothing else that can be done with them but to eat them. As a matter of fact, there are only a few animals that we are willing to eat. The great majority of them civilized human beings would not eat, but there are human beings who eat everything that comes along. A comparative anatomist will tell you that the herbivorous animals have very complicated stomachs. The cow, the goat, and the sheep have four or five stomachs. And these stomachs are necessary because of the complicated character of the vegetable foods upon which they feed—so many kinds of weeds, so many sorts of grasses, so many kinds of browse these creatures feed upon, that it requires a very complicated stomach to get the nourishment out of them. The carnivorous sea animals have complicated stomachs. The whale has from seven to eleven stomachs. The whale lives upon such a variety of structure and materials in the fish that it has to have a very complicated stomach for the digestion of such a diet.

On the other hand, our natural diet requires only a very simple stomach. The monkey, for instance, that lives upon a natural diet of fruits, soft grains, and nuts, has just one stomach; and the carnivorous land animals have also a very simple digestive apparatus—just one stomach. So we see how many stomachs are required to digest all sorts of food. The whale that eats all sorts of animal structures, with seven stomachs; the cow that eats all manner of herbage, with four stomachs; seven and four are eleven; the dog that eats flesh alone, with one stomach; the monkey that lives upon fruits, soft grains, and nuts—a frugivorous diet,—with one stomach.

So it takes thirteen stomachs to digest all the things which can be digested. The apparatus that digests fish requires a seven-stomach-power digestive apparatus; and a four-stomach-power is required to digest the roots and herbs upon which the cow feeds; but it requires only one stomach to digest lean meat, and one stomach to digest fruits and grains and nuts.

Now, you sit down at a hotel table, and there you find a bill of fare that requires all those different stomachs to digest the things it contains. There is only one animal in the whole world that has a digestive apparatus equal to the ordinary bill of fare, and that is the American woodchuck. That animal has fourteen stomachs, so it has one to spare. The idea that we must eat everything we do not know what else to do with is in the highest degree absurd. We can find plenty of uses for animals without eating them.

These are just a few of the objections to meat eating, but they are absolutely unanswerable.

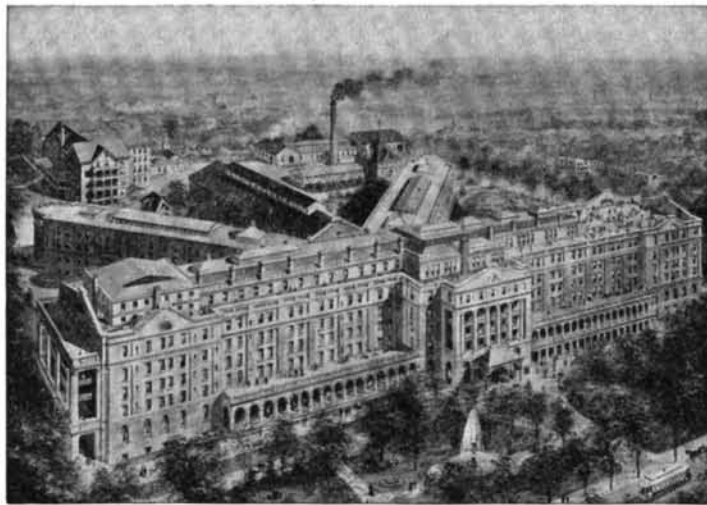
Another reason why human beings should

not eat meat is found in the following facts: Give a dog or a turkey buzzard a piece of the most rancid meat; then kill the animal, examine the contents of the stomach half an hour later, and you find the meat is sweet; it is no longer putrescent; because the gastric juice of the animal is so strong and so abundant that it has the power to disinfect it thoroughly. But human beings are not blessed with gastric juice that has the power of disinfecting rotting meat. More than that, the dog and other carnivorous animals have a liver capacity four times that of the human being. The dog has four times the liver capacity of a man of the same weight, because of its meat diet. Through generation after generation, the operation of the law of adaptation has had the effect to develop dogs with large livers, until finally we have a whole race of dogs with livers so enormously great that they are able to destroy the poisons which are produced by the putrefaction of the undigested remnants of meat in the intestine of the dog. But the man has not the liver power or capacity of

this concentrated fire from a well-trained therapeutic battery that those Gibraltars of disease commonly called incurable maladies can be made to capitulate.

To conduct a sanitarium on a thoroughly physiologic and scientific plan requires a corps of workers, or "health trainers," averaging for the whole year one and a half to two persons per patient treated. The number of persons employed at the Battle Creek Sanitarium is never less than eight hundred, and often rises in the busiest season to more than one thousand. In the summer season the number of patients and employees is about equal. In the winter season the number of patients is about half that of employees. Large numbers of attendants must be in training in preparation for the busy months.

To do all that can be done for a chronically sick person to assist him to recovery, to surround such a person with every possible advantage known to modern medical science, requires an expenditure for facilities, attendants, and running expenses far beyond any possible income except under one condition,



THE PRESENT MAIN BUILDING

the dog, and he has not the stomach power the dog has; consequently when he undertakes to live upon a dog's diet he suffers. A scavenger animal has a scavenger stomach and a scavenger liver. Man has neither. He has a higher function in the world.

A GREAT CENTER

(Continued from page one)

its workshop, where alone all the resources of this newest and most rational of methods of healing may be employed.

The application of this system in a scientific and efficient manner requires a large corps of nurses and assistants who are trained in the technique of hydrotherapy, massage, manual and mechanical Swedish movements, graduated exercises, medical gymnastics, electricity in its varied forms, thermotherapy, mechanotherapy, phototherapy, rational dietetics, the out-of-door method, and various other physical and physiologic agencies, in addition to the methods of ordinary hospital practice. It is only by

viz., that many of those engaged in the work shall be willing to make a partial contribution of their services, receiving at most merely nominal wages, barely sufficient to meet the actual cost of living on a very simple basis. Physicians, managers, nurses,—everybody concerned in the enterprise,—must be interested in it from a scientific and philanthropic standpoint, and willing to consider as chief compensation the satisfaction of seeing men and women restored to health, who, without the services rendered, would have little prospect but the grave.

The Main Buildings

These consist of four large buildings, chief of which is the central structure dedicated May 31, 1903. This building, which affords rooming accommodations for about 400 guests, contains also offices for the thirty physicians, treatment rooms capable of handling more than 1,000 patients, dining-room accommodations for an equal number, a gymnasium 120 by 66 feet. The bath buildings are three-story and basement, and with the gymnasium are joined to the main

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HEROISM IN SELF-CONTROL

THERE are few men and women who do not have the sincerest admiration for the heroic element in human nature, wherever it is manifested. Indeed, the most of us have some degree of ambition to be heroic, or, at least, images of ourselves in some heroic situation frequently pass through our minds and serve to relieve the monotony of the humdrum through which ordinary people have to pass in the earthly journey.

But the real reason why so few people ever come to have their names upon the country's roll of honor is that so few are willing to pay the price of real heroism. It costs something to get one's self high up in the admiration of the world. One thing we may safely settle as a universal law, that selfishness and self-indulgence will never get our names on any roll of honor. Selfishness is small and belittling to any one, and despicable in the eyes of others. Self-denial and self-abnegation is truly great, and all the true heroes of this world stand upon this pedestal.

The most honored and longest remembered heroes are those who have lived and striven for the reformation of a world that is continually gravitating downward away from right paths toward destruction. These have been obliged to face a popular prejudice; they have been compelled to stem a mighty tide of popular custom; they have had to break ranks with the multitude and walk alone; they have had to climb while others glided easily down-grade; they have been laughed at and mocked; but in the end they have won out. Their cause has taken root in the consciences of true men and women; they paid the price perhaps in their very lives, which were sacrificed for that which they saw to be right.

In every single case those who have conquered the world of evil have first fought their fiercest battle with their own selves. They can point back to the year or perhaps the very night when that victory which opened the way for future triumphs was won. The world and the flesh held attractions for them; the gratification of their

own desires clamored for recognition; the futility of standing alone against the jeers of foes and the jokes of friends was urged upon them, but the cries of outraged truth, the peril of the people who were sinning against themselves, prevailed and the heroic march was taken up.

One of the most accessible and needy fields of heroic conquest is that of selfish indulgence of the senses. There is something truly heroic in the character of one who is willing to face the popular tide of pleasure-seekers, who seem to have full possession of the ways of the world and who claim the right-of-way, and no interference. The first question for the would-be reformer to settle is with his own conscience. In view of the benefits that are to be gained by choosing the right path, am I willing to forego the clamors of self-indulgence, to meet the jokes and jeers of those around me? Am I able and willing to withstand the tide of popular drift and current in order that I may influence others to do right as far as my influence extends? The world needs many thousands of such heroes and heroines. Some there are who are willing to take this responsibility upon them and they quickly find that right-doing carries its reward along and bestows it at every step of the way. Good health, good cheer, the satisfaction of doing right, the good that comes to others, the thought that some are being saved from suffering, and that waves of influence for good are being created and set in motion—all these things bring satisfaction to the heart of one who is following the right path.

We are approaching the season of good resolutions. Let us resolve to be truly heroic in putting into active work the knowledge we have gained of right ways of living. Let us put down forever the clamorous voices of the flesh which protest against that which is true and noble.

CHRISTMASTIDE

THE happiest season of the year is approaching so rapidly that only a very few days now remain before it will be here. "What shall I do? How shall I spend the time? How shall I find the greatest pleasure? It is a time of giving gifts. What shall I give? Oh, dear me; I have so many friends I can never afford to 'remember' them all. I wish no one would give me a single thing. (How disappointed you will be if that wish be fulfilled.) Now, what shall I do for this one? Oh, she is rich and has everything she can think of; what can I give her that she will care a moment for? And this friend—he cares nothing for trinkets such as I can buy. O, it is all a miserable farce, I don't know what to do."

This giving of gifts at Christmas time is

a most beautiful custom, it should be preserved and improved. As it prevails now it becomes in very many cases a grievous burden, and almost a nauseous thing to others. But do not let us forget that we have the poor always with us. There are those to whom the ordinary comforts of life would be most welcome. While our friends are surfeited with Christmas gifts, let us think of the poor children who look anxiously for the benefactor that does not come.

"What shall we have for Christmas dinner?" That is another poser. And as the images of turkey, and chicken, and pickles, and rich sauces, and spiced pies, rich cakes, and innumerable such sources of pain arise, the background is dark with painful stomachs, aching heads, disordered nerves and hundreds of ills that lurk around the time-dishonored feast.

Wisdom says, "Danger." Remember past years. Eat bountifully but not piggishly. Eat wisely and simply, and not wickedly and harmfully. Remember the neighbors who have little or nothing; supply food to them out of your own store if need be. Jesus Christ, who made Christmas and gave gifts to men, receives only gratitude.

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A GREAT CENTER

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building by a semicircular corridor. Within the semicircle is a great palm garden, which connects the gymnasium with the lobby of the main building.

The construction is brick, iron, stone, and Portland cement. There are no wood floors nor partitions. The floors are solid slabs of artificial stone, reinforced by strong iron cables. The partitions are of mackolite. The floors are surfaced with Italian terrazzo mozaic.

The building being frost-proof as well as fire-proof, it is easy to maintain a uniform artificial climate in the cold months, with a day temperature of 70° F. and a night temperature of 55° to 60° F.

A most efficient ventilating system supplies more than one hundred and fifty thousand cubic feet of warm fresh air per minute. The fresh air is admitted warm to the corridors, and distributed by means of individual ducts, connecting each room directly with the open air. The ventilation system is automatic and always works. The duct is of sufficient capacity to give each patient's room an ample supply of air for five or six persons. The air of the building is always and everywhere fresh and pure, and free from odors of every sort. This is chiefly due to the location of the kitchen and dining-room at the top of the building. The heavy masonry construction of the building and the stone floors render it cool in summer as well as warm in winter. There being no wood floors and no carpets, there is freedom from dust (rugs are used instead of carpets). The wide corridors and simple style of structure secure free movement of air. There are pleasant parlors and ample foyers on every floor. There are also porches and balconies on each floor and a large roof garden, which in summer time is partly covered with awnings and used for outdoor sleeping.

The building has been erected and equipped at a cost of nearly seven hundred thousand dollars, and no pains or expense has been spared to make it in every way thoroughly fit for the purpose for which it is used.

A large palm garden (40x60 ft.) is separated from the great central lobby by a glass partition, and its fresh, genial atmosphere and delightful tropical plant life make it a favorite place of resort. The corridor leading through the center of the palm garden is the shortest route from the main lobby to the great gymnasium.

The sight of bunches of bananas ripening on huge stems towering more than twenty feet in height suggests the tropic delights of Florida in the midst of the splendid health-winning, pure, winter air of Michigan.

Patients are fond of gathering under the wide-spreading palms to chat over their lunches served on trays while enjoying the tropical scene and the pure fragrant air.

The Christmas stamps, proceeds of which are to be used for the maintenance of a visiting nurse in the city, have been provided by the Woman's League, and are on sale at the clerk's desk and pharmacy booth. A liberal patronage is earnestly solicited.



PATIENTS IN THE PALM GARDEN

QUESTION BOX

(Continued from page one)

cago, of international fame, gives a report of a case of diabetes he has been treating for some months and shows that every time he gave this patient beefsteak, that patient's sugar increased enormously. He found it was necessary to withhold the beefsteak, and that entirely agrees with my experience. I have not prescribed beefsteak for such a case as that for thirty years now, because I found out long ago that it was harmful. This same revolution has taken place with

reference to anemia. It is not necessary to eat beefsteak for the blood. Years ago I was making some medical observations with one of the greatest surgeons of recent times in England. One day a young lady came in with a very pale face, and the doctor said, "Let us examine her," and he found the blood very thin and poor. He said, "Eat more beefsteak." "Why, doctor," she said, "I don't eat anything else." The poor girl had been living on beefsteak three or four months and was getting more anemic every day. The cause of anemia is not only that the patient doesn't have enough blood-making material in the food; it is because

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A Medical Department is conducted by J. H. Kellogg, M. D., Superintendent of the Battle Creek Sanitarium.

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there are taking place in the intestine, bacterial processes by means of which poisons are formed, and these poisons absorbed into the blood dissolve and destroy the blood. There is blood enough produced, but after it is produced it is destroyed, and this destruction of the blood is the thing we must stop.

Q. Is it well to eat grape fruit and oranges, etc., at the same meal?

A. There is no reason why fruits should not be taken freely. They naturally agree with one another. There is no quarrel among fruits.

Q. How long can a hard boiled egg keep in warm weather?

A. I do not have very much experience with eggs. After an egg has been swallowed, it does not keep very long. It is likely inside the body to undergo decomposition within twenty-four hours. I do not think a boiled egg should be depended upon to be wholesome more than two or three days, and it is not very wholesome then. Eggs can be dispensed with without any disadvantage.

Q. In a balanced ration, what per cent of the food should be protein and what per cent fat?

A. Ten per cent protein, thirty per cent fats, and the balance carbohydrates. In my opinion, that makes the proper proportion of the different principles which is best for the average person.

Q. Does the person who is under normal weight and wishes to gain in weight require more fat than he does in normal conditions?

A. If he can digest the fat easily, he may take a little more fat without disadvantage; but it depends entirely upon the state of the stomach. The person who makes an excess of hydrochloric acid may take more fat; instead of 600 calories, he may take 800 or 900 calories. A person who makes a deficiency of hydrochloric acid should lessen the amount of fat a little, and perhaps take no more than 400 or 500 calories of fat, and take more carbohydrates. It is easier for a person to gain flesh on carbohydrates than on fats. Carbohydrates are more fattening than fat, because they are more easily digestible. The carbohydrates which one eats are practically all digested and all absorbed, whereas of the fat we eat, not more than nine-tenths, and often less than that, is absorbed.

Q. What is the cause of shooting, needle-like pains in the eyeball?

A. That is a neurasthenic symptom, but it may also be due to a diseased condition of the eye. It may be a congested eye, or some other serious trouble. Go to the oculist and have the eyes examined.

Q. What is the cure for vertigo?

A. Get rid of autointoxication.

Q. What is the cause of an itching skin?

A. The skin trouble is simply an indication of the state of the body, and the whole body must be put right before this condition will be corrected. This is true of nearly all local troubles.

Q. Is it not a fact that improper combinations of foods in eating cause as much or more trouble than improper foods themselves?

A. No, it is not a fact, if we take care to chew very thoroughly our foods until everything is in a pulaceous, pasty state when it passes down the throat—it is not necessary to pay very much attention to combinations. If one takes the food in the right proportions of the different elements, the matter of combinations is a matter of very small moment, provided you thoroughly chew everything.

Q. What is the best treatment for a prolapsed colon?

A. To strengthen the abdominal muscles by means of massage, by lifting up the bowels, daily, by exercises to develop the abdominal muscles, sometimes by the use of the abdominal supporter, and by the application of the electrical current to cause contraction of the abdominal muscles and train them into a more vigorous condition.

Q. Kindly explain the cause of headache and restlessness which accompany a change from a flesh diet to a fleshless and tealess diet.

A. Headache and restlessness resulting

from a change from a flesh diet and a tea diet to a tealess and a fleshless diet! Now, I am surprised that any one should have that experience. I do not know but it may be the result of a lack of intestinal stimulus or oxidation from the body. Certainly my experience has been that a person discarding meats has a livelier brain and less feeling of heaviness, and restlessness, and torpor, and drowsiness, than a person who eats meat. The effect of tea, of course, is to make one awake. I remember a good old friend of mine that I knew in my boyhood, who had an experience away back in 1820. He was a sea captain, but was sailing as supercargo at that time in South American waters, trading down, and he went ashore at Rio de Janeiro. He was entertained by the wife of the consul and that night he could not sleep; and his friend could not sleep, and he said, "Oh, Mrs. Jones' tea is keeping me awake." He said he thought about that, and from that day discarded tea, and became a tea totaller, and in 1826 he organized the first total temperance society in the United States. The person who asks this question may be temporarily suffering because of the sudden withdrawal of this drug; but there is no harm being done. Just wait. By and by you will find yourself waking up, and you will not suffer in any event.

Q. Is there any remedy for dreams?

A. Yes; the best way to avoid dreams is first of all to go to bed with an empty stomach. Nothing will make one dream like a full stomach. And the next thing is to go to bed with a clear conscience. And the next thing is to go to bed with tired muscles. The muscles must be weary. Go outdoors and exercise enough to make your muscles good and tired so you sweat freely, circulate the blood vigorously, and you get the poisons so well oxidized before you go to bed that there

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is nothing there to irritate the brain cells, and you are likely to have sound sleep.

Q. Can deep breathing in any way produce dilatation of the right ventricle?

A. Not ordinary deep breathing—only in connection with violent exercise.

Q. What is the cause of hardening of the arteries?

A. Meat eating is one cause, and I think the greatest of all causes. The putrefaction in the intestines and the poisons which are absorbed; alcohol, tobacco, tea and coffee are other causes.

Q. What is the condition of the stomach which causes slow digestion and hyperacidity at the same time?

A. Hyperacidity is often the result of slow motility. The food is retained in the stomach too long, and the result is the excessive secretion of acid from excessively long retention of food in the stomach.

A GREAT MISSIONARY MOVEMENT

SUCH indeed is the character of the movement instituted by the laymen of the Christian churches of this country in behalf of world evangelization. A series of about seventy-five conventions is now being held in the principal cities of our country. One was held this week in Detroit, and a representative of this paper was in attendance. Nearly fifteen hundred men sat down to supper in the great Wayne Pavilion on Saturday evening, and every man of them was thoroughly alive over this question. The addresses which followed the repast were delivered by Bishop Williams, of the Episcopal Church; Col. E. W. Halford, of Washington; and Mr. J. Campbell White, secretary and chief promoter of the movement. These addresses were well calculated to make the profoundest impression, and gave to the great convention, which continued over three succeeding days, a strong impetus. This impetus was well sustained by the succeeding addresses and councils. The convention will, it is hoped, constitute the opening of a new and vigorous era of missionary effort in the State and adjacent territory.

AN INTERESTING ADDRESS

THE missionary meetings held in East Hall parlor every Sunday afternoon are of unusual interest. Last Sunday a very interesting talk was given by Dr. W. A. Lukes, medical missionary to Assam. Dr. Lukes gave a description of this pioneer country, where all kinds of reptiles, leopards, wild elephants, wild dogs, etc., abound. The natives live in huts containing three rooms, one of which is devoted to the animals, especially the pig, which is an essential part of each family outfit. They live very near the border line, where there are still savage tribes

which engage in head-hunting and slave traffic, making raids upon the villages of other tribes whenever they dare. The British troops, however, hold in check these depredations. The doctor related very interesting incidents of his medical work among these people and the difficulties under which he performs very serious surgical operations, and also gave an account of the dangers existing in this country. It is only very recently that even the missionaries could feel any degree of safety from being kidnapped by the hostile tribes across the border. There is great need of young men and women to take up work in this territory, and Doctor Lukes gave a very earnest appeal for consecrated men and women to join them in this noble work.

ARRIVALS

Following is the list of arrivals at the Battle Creek Sanitarium for the week ending December 6: F. B. Turner and wife, Ohio; D. C. Dunn and Henry, Ill.; Lucy F. Morehouse, Mich.; Alfred Edler, Chicago; J. G. Ludt, Colo.; Dr. B. Friedlander, Mich.; Joe Heydon, Mich.; Knute Espe, Iowa; M. E. Stanley, Ark.; Mrs. Clara Ely and Betty, Mich.; Mrs. W. K.

Kellogg, City; Mrs. C. A. Barber, Chicago; Coke L. Doster, Ohio; Dr. F. C. Hill, Ill.; G. N. Frazer, Detroit; John A. Taylor, City; J. P. Conn, Pa.; Wm. C. Rohrer, Pa.; Mrs. J. M. Yurg, Duluth; Dr. J. M. Fleming, Ind.; J. H. Moyer and Mrs. J. H. Moyer, Ind.; Miss Beth Kellogg, City; Mrs. Harry T. Myers, Chicago; F. F. Ward, Mich.; B. F. Gray, Ill.; Eben B. Gown, Ill.; Alma Strand, Chicago; Mrs. W. W. Ramsay, Detroit; W. H. H. Sparks, Mich.; Edw. H. Piony, Mich.; C. M. Feilbach, Toledo; Coral E. Davis, W. Va.; Ernest Mayer, Pa.; Charles Wingenroth, Pa.; Emily May Ely, Mich.; H. H. Hirsch, Ga.; A. D. Savage and Mrs. M. Savage, Ill.; Dr. and Mrs. Thayer, Wis.; Mrs. S. J. Wolf, Mich.; O. H. Folliard, Ill.; Dr. and Mrs. C. H. Cushing, J. T. Burrows, G. M. Ferguson, Ohio; Carolyn A. Fischer, New York City; A. B. Holbert, Iowa; Mr. and Mrs. L. P. Hall, Va.; Dr. and Mrs. H. E. Smith, N. Y.; Chas. S. Fredericks, Chicago; Mrs. E. N. Howe, Mich.; Mrs. K. M. Hardy, Ind.; L. Wiegmann, Ill.; Mr. and Mrs. P. T. Armstrong, C. S. Willingham, and J. R. Deering, Ohio; Mrs. Jas. Joseph and Wm. Shooder, Cincinnati; Mrs. E. O. Smith, Cincinnati; Edw. Peate, Ohio; H. S. Simpson, Detroit; Geo. B. Marsh and wife, Ariz.; Anna Peate, Ohio; J. Victor Beckman and Alfred H. Beckman, N. Y.; Mr. and Mrs. W. A. Baldwin, Mass.; Miss Lucy Walcott, Ind.; G. W. Abbott and G. L. Abbott, S. Dak.; J. H. Woods, Mass.; Miss B. L. Bentley, Iowa; Jno. Van Dyke, Chicago; J. A. Sebring, Ohio; Thos. B. Reid, Wis.; Mrs. W. E. Cornell, City; S. Jacobson, Mich.; W. A. Folger, Ohio; Leah Walker, Mich.; Cecile Walker, Mich.; Louis Leh-

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**BATTLE CREEK
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man, Mont.; W. O. Potter, Ill.; C. L. Sebring, Ohio; H. A. Eberline, Detroit; Lafayette Young, Iowa; Edna Packer, Chicago; Mr. and Mrs. Jas. H. Preston, Pa.; B. Y. Bellows, Mich.; Geo. M. Conway, Iowa; W. H. W. Sparks, Toronto; Mr. and Mrs. W. R. Clymer, Cleveland; W. MacLean, Toronto; A. Adams, Ind.; N. P. Clarke, Minn.; S. M. Watson, City.

News and Personals

B. F. Gray, of Mokena, Ill., a prominent attorney, is taking treatment in the institution.

Hon. W. O. Potter, attorney and state senator of Illinois, is a patient in the institution.

Rev. C. T. Willingham, of Rome, Ga., is visiting his wife, who is a patient in the institution.

Mrs. R. L. Mays, of Oklahoma, is visiting her sister, Miss Dora Beasley, of the Nurses' Department.

Geo. M. Conway, a wholesale merchant of Sioux City, Iowa, is spending a few days at the Sanitarium.

C. H. Cushing, M. D., a prominent physician of Elyria, Ohio, is resting at the Sanitarium. Doctor Cushing is accompanied by his wife.

J. G. Ludt, of Puebla, Colo., is a recent arrival from the West.

Miss Ethel Dobbins, of the Y. W. C. A. of Foochow, China, is taking much-needed rest at the Sanitarium.

Dr. Winifred Larson, graduate of the A. M. M. C. class of '04, has gone to China to work on the mission field.

Henry Dunn, of Osmund, Ill., an old friend and patient of the institution, has returned for further rest and treatment.

Dr. F. A. Thayer and wife, of Beloit, Wis., are spending some time with us taking much-needed rest.

Mr. H. H. Hirsch, of Atlanta, Ga., registered with us last week. Mr. Hirsch comes to visit his wife, who is taking treatment in the institution.

J. T. Burrows, of Elyria, Ohio, general baggage agent for the L. S. & M. S. R. R., has entered the institution for a course of rest and treatment.

Dr. G. W. Bailey, of Leslie, Mich., a graduate of the A. M. M. C. class of '07, is spending a few days at the Sanitarium visiting old friends.

Edw. H. Perry, of Niagara Falls, N. Y., superintendent of the New York State Reservation, is stopping at the Sanitarium for a course of rest and treatment.

Mrs. Geo. Judd left the fore part of the week for an extended trip through the West, where she will visit relatives and friends.

We are glad to have with us again Mr. N. P. Clark, of St. Cloud, Minn. Mr. Clark has been visiting us annually for the past twenty-five years and is always a most welcome visitor.

Dr. J. H. Woods, of Brookline, Mass., spent a couple of days in the institution last week. Dr. Woods expressed himself as very much pleased with the work that is being done by the Sanitarium.

Letters from the Rev. John A. Brunson, recently pastor of the Sanitarium, state that he is about to resume the pastorate of the Baptist Church in Ellmore, S. C., which he left when he came to the Sanitarium. His friends will be glad to know that his health is more satisfactory and that he is enjoying his work.

REV. J. P. McNAUGHTON, who was one of the prominent speakers at the recent convention in Detroit, is now spending a few days at the Sanitarium and will speak in the chapel next Sabbath forenoon on matters in the Turkish empire. Mr. McNaughton has been located in Smyrna for many years, connected with the large schools there, and was in Constantinople during the recent revolutionary events. His address will be full of interest at this juncture. Mrs. McNaughton was with us during last winter, and won many friends.

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Mr. Horace Fletcher will give a course of lectures on vital economics, and Mr. John F. Stapleton, formerly of the Yale Gymnasium, a special course on theory and practice of Swedish gymnastics.

The next regular term (new class beginning) opens January 3, 1910.

Any who are interested will be sent illustrated announcement with further details on request. Address:

The Battle Creek Sanitarium School of Physical Education
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THE BATTLE CREEK IDEA



Vol. III No. 2

BATTLE CREEK, MICH., DECEMBER 17, 1909

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Insomnia—Its Cause and Cure

In a Parlor Lecture before Patients and
Guests, Dr. Kellogg Goes into the
Origin of Sleeplessness

INSOMNIA is coming to be a very common disease, and it is usually attributed to overwork; but there is no greater mistake than



A GROUP OF SANITARIUM PHYSICIANS AND NURSES

their homes rejoicing in a new lease of life, and while much of the time and strength of doctors and nurses are devoted to the sick who come here in helping them back to health, it is a fact that no one acquainted with the institution and its operation will dispute that a far greater work is being done for its patrons and for the world at large in the dissemination of knowledge of the conditions and principles which relate to healthful living.

The administering of the various treatments is of itself a very valuable education. The patient is taken into the full confidence

(Continued on page four)

sible work. The position of physician on the Sanitarium staff requires a breadth of experience and acuteness of observation much greater than in ordinary medical practice because of the fact that most of their cases are those who come to them after having exhausted every other available means of recovery. In most cases the troubles have become chronic and deep-seated, and the Sanitarium doctor finds himself constantly face to face with grave problems. It is only his fund of experience in dealing with such cases, and the extraordinary facilities for examination and treatments at his hand,

(Continued on page five)

that. Insomnia is not the result of overwork, though possibly it may be overwork at the dinner table; but it is not overwork at the desk; it is not overwork in business; it is not overwork at teaching, or in practice of law, or in preaching, or in manual labor, or anything else that is good and wholesome. The good Book says: "The sleep of the laboring man is sweet, whether he eat little or much." Insomnia is not the result of overwork. Sometimes, of course, a person may go absolutely without sleep, may be under circumstances where he feels depressed or worried, and he keeps on worrying until his body gets into such a state that he can not

rest; but that should not be regarded as a case of overwork.

What, then, is the cause of insomnia? There are two causes for insomnia; in one case there is too much blood in the brain, and in the other there is too little blood in the brain. It was formerly supposed that there were two kinds of insomnia, one from congestion and one from anemia. But these two kinds of insomnia are really one and the same thing. The insomnia which is the result of too much blood in the brain is not primarily due to the influence of congestion of the brain, although indirectly due to it; but the primary cause is the condition in the body which permits that excess of blood in the brain, and we find that it is due to an exceedingly common disease of which perhaps you have recently heard a good deal—

AUTOINTOXICATION.

I will tell you several reasons why I believe that. In the first place, all the cases of insomnia that I have seen have coated tongues, have a bad taste in the mouth, and very bad breaths. I do not think you can find a case that has not these symptoms. It used to be supposed these conditions were the result of insomnia. The patient does not have a good appetite, generally; his bowels move irregularly, and investigation shows that there is intestinal infection, that there are a great number of putrefactive bacteria; the defecations are putrid in character, and the patient is evidently absorbing into his body, or into his blood, an enormous amount of poisons, and these poisons cause spasm of the blood-vessels of the hands and the feet; he has cold hands and feet, and the consequence is that the blood is forced into his brain.

Now, as proof that these cases are due to intestinal autointoxication, I have seen thousands of cases in the thirty-six years that I have been associated with this work; and I have not found a single exception in which a patient with these conditions about which I am telling, accompanied with the loss of sleep, did not recover his sleep with the disappearance of these symptoms. I remember one man who declared he had not slept for six weeks. That man's tongue looked as though it needed the scavenger after it. Now, when that man's tongue was clean, and his breath became sweet, and his bowels regular, and his appetite was restored, he had no trouble about sleeping. He would fall asleep everywhere. This man became so drowsy and sleepy that we had to do something to wake him up. His wife brought him here from Philadelphia, where he had been in an insane asylum for two weeks, and he was pronounced a hopeless case of softening of the brain. In three months, he went home as well and as happy as he could be. There was nothing the matter with his stomach, his brain was all right, the bladder had nothing the matter with it. The whole trouble was in the colon. There was stasis there, a blocking up with matter which was putrefying.

STOP AND CONSIDER

We do not stop to think of things that ought to be plain as daylight to us. We do not stop to consider the bearing of things

that are of immense importance to us. When a man has a coated tongue, it means that his blood is polluted. It is not simply a dirty state of his mouth, but his blood is impure, and his whole body is polluted; he has not a clean spot in him.

I saw a patient recently in whose colon were great masses which had been stored up there, nobody knows how long; and the whole body was polluted with poisons. The putrefactions going on there give rise to rheumatic and other subtle poisons of various sorts which set up degenerative changes. In this case, the patient had beginning paralysis of the legs—shaking paralysis from degeneration of the spinal cord, because it had been bathed with these poisons for months and years.

The wonder is that we are not all dead when we consider it and see what an awful state of things we have been going through to get such horrible pollution of the body, as the result of the absorption of poisons which are pouring out through the skin. We used to suppose a foul tongue meant a foul stomach, but that is entirely a mistake. The coat on the tongue is not simply three or four square inches of tongue; there are seven square feet of it. It extends down through the alimentary canal and it is much larger than it appears. But it is worse than that. It is not simply the surface of the mucous membrane; but it is more than skin deep. It is throughout the whole body, in the muscles, in the glands, and in the brain, and the blood itself is a turbid, polluted stream; everywhere it goes it is bathing the tissues, cells and fibers of the body with this poison-laden flood which ought to be life-giving, healing and vitalizing; instead of that it is a fetid, poisonous stream that is polluting everything it touches.

A CASE IN ALGIERS

Now, this is the result of the accumulation and hoarding up in the body of this great quantity of toxins. I received a very interesting letter to-day from a friend of mine who is living in Algiers. He is an old nurse who was here fifteen or sixteen years ago. He can nurse in five languages. In this letter he sent me the account and picture of a man who had been going through an interesting experience over there that illustrates one of the things I am speaking about here; this man is a professional faster. He goes into a town and advertises that he is going to fast for thirty days, and allows himself to be shut up in a box and sealed up, and a glass plate is put in front of the box; he is put under close observation so there can be no deception about it; and there he lies or stands or sits for thirty days. The air can circulate through his box, and he has a man standing at the door collecting fees.

It was very interesting to see how auto-intoxication developed in that man as he went along. During these thirty days he did not taste a morsel of food, and his bowels did not move. The popular impression that the bowels move to carry off the remnants of food is one of the greatest mistakes in the world. The bulk of the intestinal contents is made up of excretions. The whole intestinal canal is an excretory surface like the

skin. The most poisonous products, some of them, escape from the body through the mucous membrane of the liver or bowels. The liver pours out the bile that contains the most deadly poisons in the body. The liver is

A RENDERING ESTABLISHMENT.

There are millions of dead particles floating along in the blood current. There are thirty million billions of red blood-cells in the body, and eight million of them die every second of our lives. It is the duty of the liver to grind them up, as it were, and work them over, and it does this in a wonderful way, sifting everything out of this refuse matter that is of value. The coloring matter of these red blood-cells is used to dye the little picture gallery of the eye, that has to be painted black in order that the pictures can be taken. So this coloring matter is made from the red cells, and the hair and the skin have to be tinted, and the whole body has to be touched up here and there; and the red cells furnish the coloring matter, while the liver sifts it out, together with other materials to be saved. The remnants that can not be used for any other purpose are sent down through the bile, which is made up of these remnants constituting the most poisonous products that are found in the body. The bile is twice as poisonous as the urine. This is poured out into the intestine, and it is the duty of the intestine to carry off these poisons; it is the outlet for excretions from the mucous membrane and the liver, and the food remnants. It is just as necessary that the outlet of these poisons should be kept open, and should be regularly operated, as that the skin should be kept open, or that the lungs and the kidneys should do their work. And when these poisons are allowed to accumulate in the body, the most direful results follow. This was well illustrated in this case. The first report of the man said he was rather restless and nervous. During that whole time, thirty days, all the poisons that should have been excreted by the intestine accumulated and were absorbed back into the system. So day by day he became more nervous; by and by he had convulsions; part of the time he was in a comatose state, and part of the time in a convulsive state. Each morning the report was that he had had a very nervous night, had insomnia, resulting from the accumulation of poisons, and throughout the night he was delirious, almost beside himself. But he survived, and after thirty days was taken out, still alive, collected his fees and went on.

THE MISTAKES OF FASTERS

Now, we do not have to go to Algeria to see this same thing going on. There are places in this country where the fasting fad is more or less exploited, and shows exactly the same results. A case came under my observation not very long ago,—a man who had been fasting for twenty-one days, met me and said, "Doctor, I don't know whether I am doing just the right thing or not. I have not been eating for twenty-one days; I had a coated tongue, and I thought it ought to clean off, but it doesn't clean off, somehow; look at it and see." He opened his mouth, and it was fortunate I was out in the

open air. His tongue was a very filthy looking object, and his teeth were covered with the same brown coat; his breath was foul with the poisons which were produced in the colon. Now, this man said, "I have not eaten a morsel for twenty-one days, and how can I have such a coated tongue? Why does not my tongue clean off?" I said, "Your blood is impure. It is not simply a foul tongue or mouth, but foul blood, and you have a tremendous accumulation of poisons in your body." I asked him how long since his bowels had moved. He said, "Of course, I have not eaten anything for twenty-one days; why should my bowels move?"

That man had evidently forgotten that he had such a thing as a liver, that there was any such thing as bile; that there was such a thing as intestinal excretion, if he ever knew anything about it. I said, "There is some other reason for the bowels to move besides carrying off food remnants. You would better have a laxative." He said, "You think I better stop my fasting, then?" I said, "What are you fasting for?" He said, "To get my tongue clean." "Is it cleaning off?" "No; it is getting worse all the time." And why shouldn't it? The body was simply hoarding up poisons more and more day by day.

The great mistake in fasting is the fact that the bowels cease to act because they have been accustomed to having some material coming in regularly which sets up the natural rythmical movement; and as this is suspended, the bowel action is suspended, and these excretions simply accumulate and pile up. Fasting is a fad which is developing somewhat at the present time; it is simply the revival of an old exploded notion that was developed in Germany a hundred and twenty odd years ago. It has been revived from time to time, and there are still those who teach it. But the philosophy of it is entirely unsound. The man who has a coated tongue does not—in many cases at least—need less food, but he needs cleansing, and that is sometimes true of the man who fasts twenty-five or thirty days. After taking food again, one who has fasted very likely feels better, because during that long fast the starvation of the body has produced an avidity for the new material, and when new food is taken there is an unwonted activity and a stimulation of the vital functions such as comes to a person who has had a long attack of typhoid fever; he feels better than he did before. He fattens up, looks better, and his skin is clearer than it was before.

RATIONAL FASTING

A long fast really has much the same effect as a long sickness. There is a rational method in which all the good of fasting can be secured without any of its dangers and inconveniences. The whole secret is to recognize the fact that this coating of the tongue and this poisoning of the blood is not due to some wrong state of things in the body in general; it is not due to some diseased process that is going on in the tissues in general, but it is entirely due to a putrefactive process that is going on in the colon and in the small intestine. It is only necessary to stop this putrefactive process, and all the

evils that arise from that source, which are the outgrowth of this autointoxication, are at once removed.

Now, how are you going to do that? Sometimes it is a good thing to stop eating ordinary food. The man who has this coated tongue and has autointoxication has nearly always been a meat-eater, and fragments of flesh are decaying in his colon. Suppose one had a piece of decaying beef in his pocket. Just think of what a state of things that piece of meat would create after it had been there two or three days.

HIS FRIENDS WOULD FLEE FROM HIM.

But beefsteak rotting in one's pocket is not half as bad as a beefsteak rotting in one's colon. How strange it is we do not stop to consider that things that can putrefy outside the body can putrefy inside the body.

thought he was making a great impression. But suddenly a man came along, stopped a moment, and shouted out, "Do not listen to this man; he eats cows." And every person fled from him as though he had the pestilence. They would not listen to a man who ate cows.

A friend of mine told me that when people were starving out there in one of the famines, they found a poor man on the wayside just expiring, and they picked him up and carried him into the house and offered him some food, but he shook his head and would not take it. Finally, my friend, in despair, went to his gatekeeper, who was a Brahmin, and said, "What shall I do? I can't find anything he will eat. He shakes his head at everything." He said, "I know the trouble. He is afraid of you because you have eaten meat. The food you offered him has been



DR. J. H. KELLOGG'S DEER PARK

The putrefactive process can go on in the colon more rapidly than in any other place, because there is just the right degree of temperature, and there is moisture, and millions and millions of germs which inoculate the putrefactive process and set it going. The thing to do in the first place is to stop eating things that will putrefy.

I know that one of the worst things that exists in this world to-day is the consumption of flesh; it is one of the greatest sources of mischief, and I do my best to get people enlightened and their eyes opened to see what a horrible thing it is. We don't stop to think what that would look like to people in India, for example, who never touch flesh. A missionary told me a while ago that a Hindoo said to him, "I have heard that over in America they kill pigs, cut them up in pieces, pack them down in barrels, and six months afterward actually eat them. Is it possible?" The missionary had to tell him it was possible. A missionary told me of an experience he once had on the street in Calcutta. He was preaching the Gospel, and a great number of people had gathered around, and he

handled by a meat eater. I will prepare him some food." So he cooked him some rice and he ate it and lived. That man was ready to die before he would pollute himself with flesh, or anything that had come in contact with flesh, even indirectly.

We were talking about insomnia. This all has a relation to insomnia. The man who can not sleep, can not sleep because his blood is so full of poisons that they irritate his brain. This polluted blood bathing his brain, which may be too full of blood, or may have too little blood, causes a spasm of the blood-vessels of the brain.

The baleful influence of these poisons extends to all parts of the system and manifests itself in various disturbances. The mucous membrane becomes infected and offensive, the blood is crowded into the portal veins in the abdomen, and these are the reasons the man can not sleep. Get that man's tongue clean and his breath sweet, and he can sleep. The great cause of insomnia and of nervous diseases in general is this chronic poisoning to which so large a portion of the people of this country are subjected.

THE BATTLE CREEK IDEA

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LOOKING ON THE BRIGHT SIDE

WINTER days are apt to be cloudy and dark, and as we try to look up we see no signs of sun, moon, or stars. And yet we know they are shining still and that much of their light filters through the thick mists that overhang us. We only wait for the clouds to pass away, and then we shall know that through all the gloom that surrounded us the lights of the upper world were still bright and clear.

And this allusion is but an example of our lives. Life is not all clear nor all clouds. Our sky may become overcast, and we be for some time unable to see beyond them with our natural sight. It seems to us that the sun will never shine again. Day after day sickness and pain press upon us, and it almost appears as though there were no future for us, as though there were really nothing to look forward to except gloom and darkness.

But these are the misgivings of a timid heart; we know well enough, if we will but take in the fact, that above the clouds God lives in the serene atmosphere of everlasting peace, and that step by step He is leading or seeking to lead his children through the gloom and out of the weakness of this life into the perfection of his own presence. And this is just as true in cloudy weather as in the fair days of summer sunshine. It is just as true in sickness as in health. Joy and sorrow are set one over against the other, and both are designed to teach us of the goodness and grace of our divine Father.

The habit of cheerfulness has a most salutary effect in this world. If all the cheerful hearts were to be filled with sadness, if all the sunny faces were to wear a cloud of gloom, if there were no words of comfort spoken, and no uplifting spirit abroad in the world, what a sad world it would become! There is no prospect but has its bright side. There is no situation in this world where the rays of hope and comfort do not penetrate. Even if we have reached a point where the lights of this world are paling, there still remains the life to come, that better world. But even here there is

no reason for giving ourselves over to sad forebodings and miserable repinings. Things might be infinitely worse; others are suffering far more than we (if there be any comfort in that fact); God is good; and we have many blessings for which to be thankful.

"A cheerful mind doeth good like a medicine." The effect of cheerfulness is not all spent upon others, its action is direct upon our own welfare. "We are saved by hope," says the apostle. So that it is always of the greatest help to the invalid that he shall look cheerfully and hopefully on his own case. The physician and nurse are always holding up to their patients the encouraging features and phases of their work, because they know that depression and the absence of courage and hope are their greatest enemies.

The most useful people we have around the Sanitarium are those good Samaritans, who, forgetting their own troubles and covering them up with hope and good cheer, go around speaking words of courage to those they meet. Such people always get well.

GREAT INCREASE OF NON-COMMUNICABLE DISEASES

ONE of the great life insurance companies has sent out a circular directing attention to the frightful increase of deaths from diseases not contagious, and for which no one is responsible except the individual directly affected thereby. The tables presented are given from government statistics and show that while during the past twenty-eight years there has been a total decrease in the death-rate per thousand of forty-three per cent, the increase of the death-rate from such diseases as heart disease, arteriosclerosis, apoplexy, and kidney diseases has increased in the same period three hundred per cent.

The reason for this alarming state of things is declared by this pamphlet to be found in the strenuous and high living of the people, intemperance in eating and drinking, a pauseless rush in business and pleasure pursuits. Each week this journal is lifting its warning and pleading voice against the deadly customs which are becoming prevalent in our society, which ignore the claims of the body and of healthful living and actually threaten our race with extinction unless we shall be able to effect a halt and a reform.

It is such a vital question as to challenge the most sober thought of every lover of mankind. We are wont to regard those who warn us of danger as hair-brained fanatics, and to go on laughing and without heed. But sooner or later, and very soon too, everyone of us will have to reap the fruit of that which we are sowing. These are no idle tales, and no alarmist voicing a fanatical cry; the danger is plainly indicated by figures accessible to all and coming from the highest sources, and the result may be figured out by a simple calculation in elementary arithmetic.

SANITARIUM AS AN EDUCATOR

(Continued from page one)

of physician and nurse, as it is necessary that he should co-operate in what is being done for him. He needs to feel in harmony with his treatments and to understand the effect that each one is designed to produce. He must then understand more or less of the philosophy of the procedure, and this involves a degree of the knowledge of physiologic conditions. So that as the days go by, the intelligent patient is laying up a good store of practical knowledge both in treatments and in the care of his body.

At the table one can study the whole system of dietetics in a practical way, and determine for himself the effects of right and wrong habits of eating. He becomes intelligent upon the point of nutrition, on the proper combinations and proportions of the various food elements, and can thereafter eat to live. He watches each step of progress in his own case and others around him, and has the satisfaction of knowing that his gains are not simply symptomatic but real and substantial. The aim of the treatments

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is not to obtund symptoms, but to use symptoms as indications of trouble, and then under their directions to reach the seat of that trouble. Some patients are troubled for a short time because their symptoms do not disappear, but that fact is no indication that progress is not being made at the seat of the difficulty, and when that is removed the symptoms will of course no longer exist. The effects of such treatments are not merely ephemeral and transitory, but real and constitutional. So that when the patient goes to his home he is not in danger of losing what he has gained unless he shall sacrifice it by returning to the habits of living that have brought him here. He has the necessary knowledge to enable him to preserve his health, and the effects of the treatments given him not only remain but continue to increase in potency as time goes on and the system more fully rallies and assumes its normal standing.

Not only does the patient learn by what he experiences in his own treatments and circumstances, but he has opportunities to hear several lectures each week, upon the vital questions of the day as related to health and hygiene. These lectures are from physicians of wide experience and observation, they are plain and untechnical so that all can understand them. In them are given the elementary principles of healthful living, the way to avoid disease. During the stay of a few weeks one has placed before him in these lectures volumes of the very best and latest that medical science affords.

In addition to these things, the Sanitarium makes a very extensive use of the press. The Good Health Publishing Company occupies the building vacated by the Review and Herald Publishing Company at its removal. Seventy to eighty hands are employed here publishing and sending out the light and truth of right living to all the world. This institution turns out only the periodicals and smaller literature used in propagating these principles. The large books are printed elsewhere. Three periodicals are issued regularly: *Good Health*, a large and wide-awake monthly magazine of a character shown by its title. Doctor J. H. Kellogg has the editorial charge of this journal, which is rapidly growing in popularity. *The Medical Missionary* is a 32-page monthly devoted to the promotion of medical missionary work in this and other countries. It goes to all mission fields, and contains reports of great interest from those to whom it goes. Then we have the *BATTLE CREEK IDEA*, weekly, with which our readers are becoming better acquainted. These publications with the tracts and pamphlets and circulars that are constantly going out are exerting an influence that is affecting the world for good.

In saying these things no allusion has been made to the extensive school system carried on under the direction of the Sanitarium. There are at least five distinct schools in operation. First is the preparatory or academic school, run for the purpose of preparing the students for some of the technical schools. This school carries the student who requires it well into the collegiate course. Then there is the Medical College, the Nurses' Training School, the School of Domestic

Science and Home Economics, and the School of Physical Culture.

These schools are all so conducted as to accommodate the students who desire to work to pay their expenses. Of these schools we may speak more particularly at some future time.

THE MEDICAL STAFF

(Continued from page one)

that makes it possible for the Sanitarium doctor to successfully carry forward the labor committed to him.

The picture we present with this article on the first page was taken some months ago and does not exactly represent the medical and head nurse staff as it is to-day, but it is representative and shows that these women and men are still in the prime of life and in the full possession of their abilities.

The medical corps of the Battle Creek Sanitarium comprises more than thirty physicians, and from 200 to 350 nurses and attendants, the number varying somewhat with the season of the year. The physicians are all men and women who have received a thorough modern medical training, graduates of reputable colleges, and possessed of the legal requirements for the practice of medicine.

In addition to the ordinary medical equipment, these physicians have all received special training for five to twenty years or more in the principles and practical application of the Battle Creek Sanitarium system of physiologic medicine. The physiologic method, like surgery, can not be learned from a book. It depends so largely upon exactness of technique in the employment of agencies which require physical means, instruments, and apparatus, a large training

of hand and eye, and the development of the therapeutic judgment by actual experience, that only those who have had special training can hope to obtain in its application the largest and best results.

It must be said, on the other hand, however, that there is no system of therapeutics which compares with the physiologic method in versatility of application and adaptation to emergency conditions of every sort. Every home affords the means necessary for employing the physiologic method, but of course in a restricted way.

The Sanitarium aims to make the largest and most efficient use of natural or physiologic methods possible, and the constant effort toward the accomplishment of this end has developed a broad and more or less complex system, presenting hundreds of measures, means, and methods, each of which has a technique of its own, and indications and contraindications the recognition of which is as essential to success as in the use of drugs of the most powerful sort. These the physician must master.

The leading physicians of the Battle Creek Sanitarium have been actively connected with the institution for ten to thirty years. All have been specially trained for their work in the best medical educational institutions of this country and Europe. None are allowed to take the responsibility of managing cases who have not had at least several years' experience with the Sanitarium system. But the largest experience would enable the physicians of the institution to accomplish little, were it not for the aid which they receive from the laboratory experts in working out an accurate and complete diagnosis, and the co-operation of an army of trained nurses and attendants who, with untiring, conscientious skill, carry out their prescriptions at the bedside and in the

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Three journals are published at the Battle Creek Sanitarium:

The Battle Creek Idea (Weekly).....	\$1.00 per year
Good Health (Monthly).....	1.00 " "
The Medical Missionary (Monthly).....	.50 " "

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various branches of the treatment department.

The management of the Battle Creek Sanitarium feels exceedingly grateful for the generous support and co-operation which has been accorded it by the members of the profession in all parts of the United States, as well as in foreign lands, where the most eminent medical bodies accord to the institution the same standing as that of any well-organized public hospital. It will be the most earnest endeavor of the managers and faculty of the institution to make it in the future still more deserving of confidence and patronage, and to maintain its standing as a leading exponent of physiologic medicine.

Any reputable physician who desires to inspect the institution or to investigate its methods of treatment and clinical research, will be cordially received as a guest for a day or two at any time on application to the medical office of the superintendent. A surgical clinic is held each Wednesday.

Letters from physicians introducing patients are often of great service and are always gratefully received. It is the policy and practice of this institution to co-operate with the home or attending physician, not to supersede or antagonize him. The mutual aim and interest is the recovery of the patient in the shortest possible time and to the most thorough extent possible. No method is employed which can not receive the endorsement of any scientific physician. The members of the medical staff are always ready to send to the attending physician not only a full report of the findings in the case, but also of the measures of treatment prescribed.

The road to disease seems broad and easy to the vast multitudes who thoughtlessly move along its downward slope, and even seems to be embowered with roses. But alas, as we strive to climb back again to the paths of health, we find that we must have plucked all the roses and left only the thorns.

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QUESTION BOX DEPARTMENT

EACH Monday evening Dr. Kellogg conducts a Question Box talk in the Sanitarium parlor, where all guests and patients are at liberty to submit questions relating to health and health topics.

Q. Why is vinegar bad for one to use?

A. Vinegar is a product of decay, or rather of a vicious fermentation. It is a poison substance. It has no food value. Professor Voix, of Paris, in experiments made upon rabbits, guinea-pigs, and other animals some years ago, showed that acetic acid has twice the power of alcohol to produce gin-liver; that a man is twice as likely to get gin-liver from vinegar as from alcohol taken in the same quantity.

Q. Do you consider green peppers harmful?

A. Yes; they are not food, and are not naturally intended to be eaten by human beings.

Q. Why is the air in the early morning so good?

A. It is cooler in the morning, and on that account it is more tonic in its effects.

Q. If the blood is below the standard, what would you advise?

A. Eat good, wholesome, digestible food, breathe an abundance of pure, fresh air, get rid of the toxins in the intestine which are destroying the blood, and the blood-making will take care of itself.

Q. How do fats furnish heat to the body?

A. The fats are burned in the body, not in the same way, but as really as coal is burned in a stove. The process is not just the same—it is wet combustion. The rust of iron is caused by the combination of the oxygen of the air with the iron. That is really combustion, although it takes place under water. Some heat is produced by that combination of oxygen with iron. If the iron is entirely converted into rust, just the same amount of heat is produced as would happen if the iron were burned in an oxy-hydrogen flame. Wet combustion goes on in the body, and in that way fat is burned.

Q. Are yogurt tablets ever harmful?

A. No.

Q. What fruits and vegetables contain oxalic acid to an extent that is at all objectionable?

A. Pieplant, or rhubarb, contains an objectionable amount of oxalic acid, so it should be discarded. Spinach contains a considerable amount of oxalic acid also, but it is easy to obviate the difficulty by simply parboiling the spinach. That will remove the oxalic acid. There are no other vegetables which contain a very considerable amount of oxalic acid. They all contain just a little, and it can be easily removed by parboiling.

Q. How can you tell, when one coughs, if the sputa comes from the lungs or the stomach?

A. When it comes from the stomach it is regurgitated.

Q. Does the brain worker need more food than the manual worker?

A. No, no more at all. Experiments made by Dr. Atwater and Dr. Benedict and their

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Among other special advantages offered are laboratory instruction in bacteriology and chemistry, the use of the microscope, urinary analysis, practical course in cookery and dietetics, medical gymnastics, swimming, anthropometry and open air methods.

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colleagues at Middletown, Conn., where men were put into a big iron box and all the excretions of the body were carefully studied, showed that a man hard at work with his brain required no more food of any sort than a man who was simply loafing, doing nothing at all. A man sitting still in a chair, doing nothing at all, threw off the same energy from his body in the way of excretions, secretions, and heat, as the man who was hard at work studying, or doing any other hard mental work.

ARRIVALS

THE list of arrivals at the Battle Creek Sanitarium for the week ending December 13 is as follows: H. H. Shrive, Mich.; Dr. F. E. Stuber, wife and daughter, Ohio; H. H. Meyer, Ill.; W. E. Hosler, Pa.; Florence A. Pray and Mrs. R. B. Pray, Kalamazoo; J. H. Collier, Ill.; Mr. and Mrs. L. P. Hall, Minn.; A. T. Pray, Wis.; Misses Anna and Hattie Supera, Ind.; J. K. Schwabacker, Ill.; Emily May Ely and friend, Mich.; Miss Ina Lamb, N. Y.; Marion J. Conley, N. Y.; Mrs. Howard Pattillo, Ga.; C. F. Fowler, Iowa; I. N. Bushong, Mich.; Clarence A. Guarden, Mich.; Adele Richey, Ind.; Dr. and Mrs. E. R. Cutler, Mass.; A. C. Chapman, W. Va.; J. C. Mean, Wis.; Roy I. Lorish, Chicago; Elizabeth A. Sweets and Ena Belle Young, Kalamazoo; Mrs. Henry Topping, Japan; W. J. McKoen, Mich.; J. G. McNaughton, Turkey; Mrs. Jennie E. Wyman, Minn.; Albert Skalle, and J. H. Clarkson and wife, Chicago; Frank Hann, Mich.; W. F. Lewis and wife, Ohio; Mr. and Mrs. E. B. Campbell, Pa.; Miss H. M. Lint, Detroit; Mrs. H. Osmansen, Ill.; H. G. Hedden, Chicago; J. H. Haller, Ohio; E. D. Bole, Ohio; Edw. Seibels, S. C.; J. W. Shore, Mich.; A. Dietlerle, Detroit; Mrs. W. E. Patterson, Iowa; J. Harvey Fenner and wife, Mich.; A. R. Dryer, Iowa; Geo. A. Upton, Mass.; Geo. H. Royce, Chicago; Wm. B. Hatch, Mich.; C. B. Harnon, Ohio; F. L. Gordon, Detroit; Mr. and Mrs. C. N. Thomas, N. Y.; W. G. Cain, Tex.; L. L. Jester, Tex.; E. B. McDowell and E. P. Lockwood, Chicago; Ralph N. Smith and son, Ind.; Thos. B. Reid, Wis.; J. Metzberg and wife, Chicago; A. G. Ellms, New York City; Wm. Clark and wife, Congo Free State; W. A. Stockman, Ind.; Jno. Van Dyke, Chicago; Ethel Preddy, Ohio; W. P. Tuttle, N. Dak.; Thos. Alexander, Pa.; Katherine H. Williams, N. Y.; Lewis H. Kirby, Kalamazoo; Fred S. Sperry, Ohio.

News and Personals

Geo. A. Upton, of Magnolia, Mass., is a new arrival.

J. H. Collier, of Gibson City, Ill., is a returned patient.

Miss Iva Lamb, of Allegheny, N. Y., is again taking rest and treatment in the institution.

Dr. W. H. Riley has returned from a visit to Colorado.

L. P. Hall, of Duluth, Minn., has returned to the Sanitarium for further rest and treatment.

J. H. Clarkson and wife, of Chicago, are spending a few days in the institution taking a course of treatment.

Prof. W. J. McKone, of Albion, Mich., superintendent of the Albion Public Schools, is spending a short time at the Sanitarium.

Miss Florence Pray, of Kalamazoo, has entered the institution for a course of rest and treatment. Miss Pray was accompanied by Mrs. T. B. Pray.

Doctor Laura B. Stoner, of the Sanitarium medical staff, has returned from an extended trip through the West, visiting California, Texas, and Mexico.

Mrs. Henry Topping, of Marioka, Japan, is taking much-needed rest at the Sanitarium. Mrs. Topping is a missionary under the American Baptist Board.

We are pleased to have with us again W. G. Cain, of Tyler, Texas. Mr. Cain is a frequent visitor at the Sanitarium and is always welcomed by all who know him.

Harry Sanders, business manager of the Wabash Valley Sanitarium, of Indiana, is spending some time with us, visiting old friends about the institution. Mr. Sanders was formerly connected with the Battle Creek Sanitarium.

Dr. Carolyn Geisel, who has been in Minneapolis for a few weeks in the interests of Health Schools, has returned, and Miss Ella Thompson, of the nurses' department, has gone to that city to carry on the work introduced by Doctor Geisel.

On the evening of December 8, Doctor Kellogg entertained the employees of the Good Health Publishing Company and their wives, to the number of about ninety, at a banquet supper given in the Sanitarium. All report a most enjoyable time. Speeches were made by Doctor Kellogg and Messrs. Belden, O'Donnell, Hood, and Israel.

Mr. and Mrs. H. R. King, of Seattle, left us on the 3d instant for their home in the West. Mrs. King, who was here for treatment and surgical work, made a most excellent recovery, and her husband remained with her throughout. Both expressed their appreciation of the benefit received by their stay at the Sanitarium.

Several of the doctors, nurses, and other workers are taking advantage of the holidays for a good visit home. At this season there is a lull for a few days in the work of the institution. Not that it ever stops, but everybody who can go home for Christmas does so, and those who are there usually prefer to remain with loved ones until after the festive season. So that this makes it possible for a number to be released from their duties.

We are pleased to announce the return of Doctors R. H. and Elizabeth Kerr-Harris, who have spent a few months in Edinburgh, Scotland, in post-graduate studies. Upon finishing their studies they visited London and Paris, Vienna and Berlin. They were eminently successful in their work in the Edinburgh schools, and of this we shall speak more particularly when full reports are at hand.

Rev. Joseph Clarke and wife, who have spent many years on the Congo in missionary work, are now at the Sanitarium on their third visit. They are soon to leave this country for the purpose of opening up new fields in the Sudan. Mr. Clarke was recently urged to accept an honorable position as secretary to one of the great foreign mission boards with an office in Boston, and at a good salary. Without the least hesitancy the attractive offer was declined for the arduous and self-denying labors of a pioneer missionary in the wilds of Africa. Surely, the spirit of heroic devotion to the cause of Christ and the woes of the world has not died out when we witness such examples of self-denying love for the poor heathen in his helplessness. Doctor Clarke gave us a most interesting stereopticon lecture on the Congo regions, on the evening of the 14th instant.

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**The Battle Creek Sanitarium School
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**BATTLE CREEK
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Doctor Kellogg left us on Monday for a short trip to Washington, D. C., where he is scheduled to address the great National Temperance Convention. In addition to Washington, he will also visit Philadelphia and New York, and will be absent nearly a week.

Edward Burton MacDowell, the celebrated traveler, gave a most interesting and instructive lecture to the Sanitarium family on the evening of the 11th instant. The subject was the Colorado Canyon, the Yosemite Valley, and the Glaciers of Alaska. The views were very fine and were interspersed with moving pictures, which, with an eloquent address, combined to give his hearers a very vivid impression of these wonderful scenes.

The report of the Sanitarium W. C. T. U. for Thanksgiving shows that a notable work was accomplished in caring for those in need of special comfort. Dinner was provided for sixty-two persons in the three homes: Haskell Home, Bethesda Home, and James White Memorial. Over one hundred garments were distributed and \$81.52 in cash was subscribed. In addition to the dinner, much extra provisions, especially fruits and nuts, were donated. It is the intention of the Union to follow up this good work on Christmas. The ladies expressed their great appreciation at the willingness of the people to assist in this undertaking.

The Sanitarium pulpit was occupied last Sabbath morning by Rev. J. P. MacNaughton, of Smyrna, Turkey-in-Asia, who has spent

twenty-one years in missionary work in that country. Mr. MacNaughton is superintendent of the work of the American Board in that region. He was in Constantinople at the time when the proclamation announcing the constitutional government was issued by the late Sultan. He was also in Constantinople six months later when the revolution received its famous backset, and the massacre of the entire Christian and foreign population of Constantinople was averted by a very narrow margin. Mr. MacNaughton gave to us a very interesting account of those times.

The second number of the Sanitarium lecture course was given by Dr. A. J. Read, the theme being the Great National Waterways and their Development. This lecture was well illustrated by both stationary and moving views, and the lecture proved to be what was anticipated, very instructive and interesting. On account of the difficulty in arranging for a full orchestra at that time, it has been decided to postpone the grand concert that was to have been given on the 21st instant, and to substitute in its place an entertainment by the Physical Culture School. This will be an attractive occasion, and the proceeds of a very small admission fee will be devoted to the Sanitarium library.

Christmas will be observed at the Sanitarium with fully the usual interest. Christmas eve a special song service will be held in the lobby, which will be decorated with flowers and greenery. On Christmas night a "tree" will be erected in the gymnasium and presents for the Haskell Home children and

for guests and helpers will be distributed, the gymnasium being appropriately decorated for the occasion, and music will be provided by the orchestra. The morning services will be by the children of the Sabbath School, and a delectable Christmas dinner will be served both to the guests and helpers.

The annual dinner tendered by the Sanitarium to the ministers of Kalamazoo, Albion, Marshall, Battle Creek and its ministerial and missionary guests, took place on Monday, the 13th inst. The unfavorable weather prevented the attendance of quite a number, though there were at least sixty guests present. After spending a social hour together in the missionary museum on the fifth floor, the guests sat down to a bountiful repast at 1:30. The repast being over, Rev. A. A. Geiger, of Marshall, the president of the Battle Creek and Marshall Ministerial Association, took the chair as toastmaster, and the following toasts were submitted and responded to, the theme being "The Sunny Side." Dr. J. C. Soper, of Japan, spoke on the "Sunny Side of Missionary Life"; Rev. I. N. DePuy, of Marshall, spoke on the "Sunny Side of Church Life"; Mrs. C. E. Huffer, of Albion, spoke on the "Sunny Side of Parsonage Life"; Rev. G. Kooiker, of Kalamazoo, responded to the "Sunny Side of a Minister's Experience," and Dr. A. J. Read, of the Sanitarium staff, spoke on "Gathering Sunshine." After singing the hymn, "Blest Be the Tie that Binds," and a benediction, the company broke up, feeling that the occasion had been a very pleasant and profitable one.

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Mr. Horace Fletcher will give a course of lectures on vital economics, and Mr. John F. Stapleton, formerly of the Yale Gymnasium, a special course on theory and practice of Swedish gymnastics.

The next regular term (new class beginning) opens January 3, 1910.

Any who are interested will be sent illustrated announcement with further details on request. Address:

The Battle Creek Sanitarium School of Physical Education
BATTLE CREEK, - - - MICHIGAN

THE BATTLE CREEK IDEA

Vol. III No. 3

BATTLE CREEK, MICH., DECEMBER 24, 1909

Price 2 Cents

PEACE ON EARTH, GOOD WILL AMONG MEN

The Song of the Angels Is Still Sounding
Over the Earth—The Sanitarium
a Concrete Evangel

THE BATTLE CREEK IDEA joins in all good wishes and cheerful greetings to its many readers scattered here and there. It is eminently proper that at this joyous season our thoughts should run out to loved ones, and also to those by whom we are surrounded.

WHO SHOULD COME TO THE SANITARIUM?

Some Very Pertinent Questions Asked and
Answered for the Benefit of Those
Who Ought to Come

PHYSICIANS and others are constantly asking such questions as these: Can you cure obesity? What can you do for chronic cardiac cases? What can be accomplished by your methods for persons suffering with Bright's disease? What can be done for

The Appetite, True or False

Dr. J. H. Kellogg Tells Patients How They
May Discern Between a Natural
and an Abnormal Appetite

A TRUE appetite is the natural desire for food. A good appetite, well disciplined and controlled, is indeed a great adjunct to a happy and successful life. A natural appetite is satisfied with a good piece of bread, a granose biscuit, or a piece of zwieback. One



CHRISTMAS CHEER AT THE SANITARIUM FOR THE LITTLE ONES

The greatest of all gifts was the one conferred upon us by Him who gave himself to suffering, dying humanity and brought to this troubled earth the boon of peace within the heart and of good-will both to and amongst men.

It is still the office of every one who has received these good gifts to minister the same to others. It is difficult to imagine what might have been the condition of this world long ere this, had not the Gospel of peace been proclaimed over the earth. Since that night when the angels sang on the plains of Bethlehem, and the benign blessings of Christ's Gospel have prevailed, much of the world has continued to sit in darkness and

(Continued on page four)

chronic ovarian disease? intestinal catarrh? chlorosis? pernicious anemia? chronic auto-intoxication? hysteria? hyperhydrochloria? diabetes? chronic rheumatism? rheumatic gout? and similar affections?

In general it may be said that sufferers from functional disorders rarely fail to recover when willing to devote a reasonable amount of time to the effort.

In cases of structural change, a cure in the absolute sense is, of course, not possible; nevertheless, so great improvement may be secured in many cases that the patient, though he may have been for some time a confirmed invalid and considered incurable, is able to resume the active duties of his busi-

(Continued on page five)

will be quite content to take it and really enjoy it; and it will be sweet, if the appetite be normal; but if it is a false, artificial appetite, simply a craving for a tickling of the palate, then it will not be satisfied with a crust of bread; it will have to be *pate de foie gras*, *welsh rarebit*, *stewed lobster*, *pie*, *cake*, *ice cream*, or something that is artificial and false.

Mr. Horace Fletcher wrote me a little story that fits in here. He just had a letter from Venice, and they told him about his little granddaughter. She had been out to a party, and they passed around cakes and candies, but she did not take any. Pretty soon the ladies noticed that the little girl sat quietly by herself and that she had declined to eat

cake and candy, and they said to her, "Won't you have some cake?" Said she, "Please may I have a piece of bread?" Said Mr. Fletcher, "What do you think of that for a child that has been allowed to choose her own food entirely ever since she was weaned?"

FOLLOWING INSTINCT

They are trying to bring that child up naturally. Her father, Dr. Van Someren, is an enthusiast in the simple-life idea. He is quite in accord with the Battle Creek idea all through, so ever since that child was weaned, Mr. Fletcher has told me, she has been allowed to choose her own food, to follow her own natural instincts. Mr. Fletcher believes as I do, that the natural instincts are God-given guides, intended to lead us, but we have lost our aptitude for following these guides because we have so often silenced them and turned a deaf ear to their suggestion.

When a homing pigeon is taken away out at sea, five hundred miles, perhaps, shut up in a box, without a single object in sight that could possibly guide it, that pigeon goes straight up toward the sky a great distance, flies round in a circle several times, and then takes a bee-line for home. Now, tell me what it is that leads that pigeon home. We call it an instinct. It is a divine voice speaking to it. It is something more than the pigeon. The same Power that made the pigeon, and that directs all its efforts, tells it which way to go home; and that very same Power is in us, in every living person.

The same Power that made us remains with us. We are not cast adrift in the great universe by the God that made the world, and that made us. The same God that made man in the first place made every man that has been made since. There is no such thing as a natural growth; there is no such thing as Nature producing things. We think of the corn growing out in the field as being a natural process. But the process of growth is simply the phenomenon that accompanies the creative process. The creative process to-day is exactly that which it always has been. It is an entirely false philosophy to suppose that there is a great power in the universe called Nature that is doing things, and that sometimes the Creator does a few things in spite of Nature, or contrary to Nature, or supernatural, as we sometimes call it. There is only one being that has the power to create things, to cause growth; and there is only one power that is able to heal a man.

THEY THAT ARE FOR US ARE MORE THAN THEY THAT ARE AGAINST US

To convince you of that, let me bring before you a very common fact, something that is happening every moment of our lives. You remember the account in the Bible where Elisha and his servant were surrounded by the enemy's soldiers, and when Elisha's servant saw them he thought there was no possible hope of escape, because they were all surrounded by enemies; but Elisha prayed that his servant's eyes might be opened; and when they were opened, he saw warriors of God all about them, and more of them than there were of the enemy. That is what I would now like

to show you. Our skins are constantly covered with germs that are deadly. Take a knife-blade and scrape off a little of the white scurf that you can get from the skin, plant that in a bacteriologist's culture and it will grow, and you will find in a quantity of it that you might hold on the head of a pin, germs sufficient to destroy the life of every person in this room. Take a little drop of saliva from the tongue, plant that, and it will produce the very same thing—a crop of the most deadly germs.

It has been estimated that there are as many as 300 trillions of germs produced every day in the alimentary canal, and many of these are of the most deadly sort and produce poisons of the most deadly character. How do we live in the midst of all these swarming enemies of life? It is because the Lord's host is too many for them; it is greater than they. And it is a reality, too; it is not a figment of the imagination; I am not talking to you in figurative language at all; I am just telling you the plain, simple truth. Here are the blood-vessels, through the center of which the little red cells flow. They carry oxygen to the tissues, and carry carbonic acid gas back; that is their business. Besides these, are the white blood-cells, and they work their way slowly along the walls of the blood-vessels. Watch one of them, and you will see it do something strange. Somewhere in the tissues there may be a few germs that have gotten in somehow, and are growing there. When these white cells get along opposite those germs, they stop, and as you

WATCH ONE OF THEM

you will see it boring a hole right through the wall of the blood-vessel, it begins to tuck itself through, and pretty soon you see it is outside, and then it goes right straight for a germ, and surrounds it, so pretty soon the germ will have disappeared—the cell has actually dissolved it and eaten it up. That thing is going on in our bodies all the while. Our bodies are covered outside and inside with bacteria, and they are always seeking to get in. As fast as they get into the tissues, there is a phalanx several ranks deep of these cells waiting for them, as you see in your blood report—millions of red cells, and 6,000 to 10,000 of these white cells found in a very minute drop of blood. They are working all the while to protect our bodies; and not only upon the surface of the body, but within the body, in the tissues, in the blood, and in the interior of the body.

The lungs have a lining which, if it were spread out, the membrane would cover a surface of 2,000 square feet; that whole surface is covered over with these minute cells I am telling you about, that are waiting for germs which are taken in with the breath, and they capture and destroy them. So, in the liver and in the spleen there are other cells which destroy germs. The body is filled with groups of them. In the neck little lumps sometimes swell up; they are the so-called lymphatic glands, and that swelling used to be called scrofula; you find a great many school children who have these glands enlarged. Under the arm, in the bend of the elbow, in the bend of the knee, in the

groin, and scattered all through the body there are these little lymphatic glands that have it for their special business to capture germs and destroy them. So we have this wonderful provision for the defense of the body against bacteria. Now, we have no direction over it; we have nothing to do with it; but it is under wise supervision. What is it that teaches this white cell where the germ is and leads it to go straight to it? It is the very same Power that leads the homing pigeon, out at sea, straight home to its nest. We are not lost in this world; that very same Power is in every one of us. It is that Power that tells us what is right and what is wrong. It tells us instinctively the right way in life.

NATURAL INSTINCT A TEACHER

The wild Indian tastes a thing and finds it sweet, he knows it is good. When he tastes a thing and finds it is acrid, he knows it is not good. He knows that everything that has an acrid flavor is unwholesome, and if it is eaten, it is only at the expense of health, unless that acrid substance is first removed from it. But civilized beings have so far wandered from the natural way, they have become so degenerate that they have lost these normal instincts, as I was telling a preacher some time ago who was asking me what he ought to eat. I wanted him to remember what I was going to say to him, so I said to him very plainly that some people seemed to have lost their horse sense. I said to him, "You are a preacher, and you come to me for information; you yourself are a teacher, and ought to be able to tell other folks what to eat, and you certainly ought to know for yourself. Never a horse, or a cow, or a sheep or other animal came to me with such a question as that. But you are a theological teacher, a college graduate, and you come and ask me what to eat. A horse knows what to eat. Some people seem to have lost their horse sense." Who ever thought of getting a veterinary surgeon to teach his horse what to eat? Just let that horse loose and he knows what to eat. Turn him out to pasture, and he will select the sweet grasses that are good for him, and will keep away from the weeds that are unwholesome. He will eat the proper things, because he knows enough to follow his God-given instincts. He has not stifled his instincts until they can no longer teach him.

But the man that eats mustard, pepper, peppercorn, ginger, and all sorts of things that burn and sting and blister as they go down his throat, can not possibly be healthy; and those delicate whispers that are hints to him which way he ought to go—he can not hear them; he has drowned these gentle voices with the great jargon of coarse, horrid and unnatural flavors that were never intended at all for him to experience. Appetite is formed either by following the true and natural instincts that are created in us, which will lead to the establishment of a true appetite, or by following the perverted and pernicious tastes created by civilized customs.

STRANGE FREAKS OF APPETITE

It is passing strange how widely these customs prevail in shaping our eating and

drinking habits, and how shockingly these customs are at variance with the natural, simple life. Take, for instance, our common table drinks. Chocolate, cocoa, and tea and coffee contain theobromin, and theobromin is a poison. It is essentially the same thing as uric acid; they have practically the same composition. Theobromin taken into the body in the form of chocolate or cocoa is converted into uric acid; it is eliminated from the body as uric acid; and so the less one takes of that sort of thing, the better. It is a curious thing that chocolate, tea and coffee contain a larger percentage of uric acid than flesh. There is, in fact, a larger percentage of uric acid in tea, coffee and the cocoa bean than there is in urine itself. A cupful of "good coffee" contains three times as much uric acid as the same amount of urine. Think of this next time you are offered a cup of coffee.

How in the world people have got in the

number of times, and have traveled about the country from one end to the other, and have lived with the people in their huts, and know as much as a traveler could learn of them. Speaking to an official in Guadalajara one day, he showed me some charts, in which was indicated the amount of different kinds of foodstuffs that were eaten in different parts of the country. For instance, in a certain section the people used a large amount of meat, and that was made red on the chart; and here was a certain section that was very little red, where little meat was used; and here was another section that used no meat at all, and that was white. And I found a large proportion of Mexico in which the people used very little meat. There was another chart about pepper, and this showed it was really only in small portions of Mexico, comparatively, not more than a quarter of the whole territory, where pepper is used to any extent at all. In Mex-

in his district they use a great deal of pepper, and he said to me, "Every Mexican twenty years of age in my district has catarrh of the stomach; they all have dyspepsia, every one of them, from using pepper."

GIN LIVER

We had a gentleman here from Texas some years ago, and I examined him and found he had an enormous liver. He did not look like a dissipated man. Finally I ventured, in as delicate a way as I could, to ask him if he made use of alcoholics in any form. "Oh, no, I never have taken alcohol in my life. I am a strict teetotaler." "Well, how about tobacco?" "No, I do not use tobacco either, Doctor." Yet, here he had gin liver sure enough, one of the largest I ever encountered, and dropsy was beginning. I was really perplexed to know what caused it. I said, "So you live near the border of Texas?" He said, "Yes, I live right down on the line." I said, "Possibly you may



habit of doing these things, is more than I can understand; it is one of those unaccountable things like snuff dipping, chewing tobacco, and other horrible, nasty things that people do. Why, in Western Europe there is a place where the people actually make use of the excrement of birds as a table delicacy; and the Chinese, you know, eat birds-nests. They think there is nothing quite so delicious as birds-nests, in which family after family have lived and been reared. These appetites are simply extraordinary and inexplicable, though I do not think they are any more extraordinary than the appetite for flesh. Some of you can remember when you were very young and did not like those things. If any of you are skeptical, try the experiment of giving a baby just a little bit of pepper, or a little taste of mustard, and see how it will like it. These little natural children have a perfect abhorrence for those things.

PEPPER EATING IN MEXICO

I took particular pains to inquire into that matter on a number of occasions when visiting Mexico, for I have been there a

few years. In Mexico City it is used very largely indeed, and quite freely in Guadalajara, but perhaps the most of all in Mexico City. While making some inquiries in Mexico City about the habits of the people, I met a very intelligent man. His wife was a French lady, and she had a dressmaking establishment; and I inquired of him and his wife with reference to the dressing habits of the Mexican ladies, particularly as to whether they were in the habit of wearing their clothing very tight or not. They assured me that they made the dresses very closely after the Parisian fashions, and as tight as the natives could get into them. I finally asked her about her sewing girls, whether they wore their corsets tight. "Oh, no," she said, "they never wear corsets at all." I said, "Well, why not?" "Why, because their stomachs are so sore, it hurts their stomachs so." "What is the matter with their stomachs?" "Oh, they eat so much pepper they all have sore stomachs, every one of them."

I met an American physician in Zacatecas who had been practicing there for twenty-five or thirty years, and he told me that

have acquired a taste for pepper." He said immediately, "Peppers? Why, yes, I eat peppers, a great many of them." "You take your food rather hot, do you?" "Oh, yes," he said, "I can not get through a meal without at least two good-sized red peppers. I import them from Mexico and I use them very freely indeed."

I saw at once what was the matter with this poor man—that he had by the use of peppers irritated his liver until he had produced upon it all the effects that would be produced by gin. He came into my office a few days later, and said, "Doctor, you know I have been here now a week, and I can not taste anything you have here at all. Your food is so insipid I can not taste a thing." But in the course of a couple of weeks he began to taste things and finally enjoyed his food very much. His sense of taste had been so accustomed to things that would burn, and sting, and blister, that none of the delicate flavors of foods, which were put there to be the regulators of nutrition, which were put there to tell us how much

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AN EVERGREEN CHRISTMAS

Nothing seems so to represent the joy of Christmastide as the evergreen. The holly, similar, and the pine adorn cottage and hall; and it is right. The blessings represented in this natal day of redemption are perennial, and are ever shedding their cheerful and grateful influence upon the world. Some prudish people with cynical minds seek to cast discredit upon the Christian festival because of the possibility of tracing it to heathen origin. Many a Christian church served first as a heathen temple, and if anything can be rescued from the realm of darkness and converted to Christian service, let it be so.

No other event that has ever occurred in human history has the unspeakable significance that is contained in the birth of the Babe of Bethlehem. In that gift of love all our gifts and all our privileges are embraced. The birth of Christ the Lord was the birth of hope. The human life of Jesus meant life to the world. All that makes life sweet and desirable, all our aspirations, and every holy impulse, all our education and refinement, came to us when Jesus was born in Bethlehem. It is eminently fitting that the season set apart by universal consent for the purpose of celebrating this great gift should be an occasion of joyous intercourse and congratulations. The blessings that come to the world through the advent of Christ are evergreen and never-ceasing. It was not a gift that once bestowed only lives in history, growing more and more dim as the years and centuries pass by. The Son of God giving Himself to mankind is a continual process. Each man and woman receives the gift anew and fresh as though it were given to him alone. As the sorrows and woes of life continue and increase, so does the grace and benison of a Saviour's peace abound more and more.

To all our readers we fervently extend the most hearty good wishes for happiness, for Christmas cheer, and for a blessed new year, and for these, we must not forget, we shall depend very largely upon our own appreciation of our many favors.

THE APPETITE, TRUE OR FALSE

(Continued from page three)

gastric juice was needed for each one, and what kind of gastric juice was needed, could be tasted. These flavors were put into the food to induce us to masticate our food properly, and that flavoring notifies the stomach what kind of gastric juice is needed to digest that food; and when the food gets down there, the stomach has the gastric juice already on hand.

In this wonderful way we have been provided with guides, so we do not need to grope in the dark at all; but we have divine guides that are ready to lead and teach us, and that will lead us straight if we will find the way and listen to them. It is exactly as it is with conscience. When one stifles his conscience, and will not follow it, by and by conscience ceases to speak to him, and he ceases to have any compunctions when he does wrong. But when one is seeking to do right, conscience becomes more and more sensitive. I met a man a few days ago who said, "Doctor, I can not understand why it is, but since I have been eating your food, I have strange sensations in my stomach; I often have pain in my stomach if I do not eat just right. I used to be able to eat anything, and I did not know any difference." I said, "I am very glad to know it; I hope it will get worse, because you are now finding out when you are doing wrong; you are notified of it; but before you were so far astray that no matter what you did, you did not have any report of anything going wrong, as you ought to have had. Now, you know when you are out of the way, and you can correct your ways."

PEACE ON EARTH

(Continued from page one)

the shadow of death. But the time has now come for light and life to go forth. That song has swelled to a mighty chorus, and in every land on earth good-will is working amongst men. Darkness and superstition and the abodes of cruelty are giving way to the forces of love and humane effort.

The world not only goes down morally and spiritually when left to itself, but men also degenerate physically. Their habits become gross and unnatural and life becomes largely artificial and poor. An enlightened and well-sustained moral sense is necessary to maintain correct physical paths.

The uplift of mankind must begin with the reformation of physical habits and the restoration of the bodily health and strength. "A sound mind in a sound body" was the famous motto of the ancient philosophers. It is well claimed by our greatest philanthropists that disease and crime are inseparably associated. Eminent jurists declare that there is no such thing as a real healthy criminal. Moral and physical degeneracy go together. In order that the human race may be built up morally and intellectually, it is absolutely indispensable that they should be cultivated and developed along the lines of health and hygiene. The full redemption of the race contemplates the saving of the body as a basis for the restoration of the soul.

So that the glad evangel that is now being sounded over land and sea is not complete without that element that proclaims health and healing for the body.

Life and light go hand in hand into the abodes of death and the regions of darkness, setting free the captives of sin and disease. The infinite power that animates the Gospel of Jesus Christ in uplifting fallen men and women is the power that works in sick and suffering people to heal and restore them.

So, as we sing our carols to the Saviour's name, as we send forth our gifts and our good wishes, let us remember that in this "unspeakable gift" there is conveyed to the world joy, health, pardon, and life forevermore.

The Battle Creek Sanitarium has no higher ambition than to form a part of that Gospel message in concrete form. It conveys to all the suffering world its most earnest wishes of peace and good-will, and it pledges to the world still to carry on as best it can the work of extending the blessings of this two-fold Gospel of body and soul redemption, of peace and good-will wherever its influence shall extend. Not only for Christmastide, but for all the years, the BATTLE CREEK IDEA shall stand for the saving of the people, for the healing of the nations.

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WHO SHOULD COME

(Continued from page one)

ness or his profession, to enjoy a comfortable degree of health, and to lead a reasonably active life.

Of the many hundreds of persons who each year enjoy the advantages of the Battle Creek Sanitarium System, nearly all are greatly benefited, and by far the great majority are more or less permanently relieved of chronic disabling ailments which are with rare exceptions incurable under conditions surrounding them at their homes.

Few patients visit the Battle Creek Sanitarium who have not previously made use of all the remedies in ordinary use without permanent relief. The usual story told is that many remedies of various sorts have been employed under the direction of various physicians, and that some degree of relief has usually been experienced as each new remedy has been tried, but that the relief was only temporary, and that a condition has finally been reached in which no remedy available affords appreciable relief, and the attending physician has expressed the opinion that more thoroughgoing and radical measures must be employed.

A case illustrating this point was that of a chronic neurasthenic sent by a professor of materia medica in the medical department of a university. In his letter of introduction the doctor said, "I have had this patient under treatment for the last nine years; I have given him nearly every tonic in the materia medica. He has steadily gotten worse. I am sending him to you for you to give him the benefit of physiologic stimulation." Under the influence of tonic baths, massage, and a properly regulated dietary, this patient recovered rapidly and was able to return to his business.

Most chronic ailments being due to wrong habits or unwholesome conditions of life, no cure can be permanent which does not correct these habits and conditions. Palliative drugs afford temporary relief, but they can not cure.

A permanent cure requires a change in the patient, a regeneration of tissue, constitutional reconstruction, such as can be secured in no other way than by the application of the physiologic method. A change of climate or of occupation is sometimes temporarily sufficient, but more often the patient requires the advantage of measures which powerfully influence metabolism, which encourage hematogenesis and leucocytosis, which increase the alkalinity of the blood and assist blood movement.

BLOOD-BUILDING

"It is the blood that heals;" hence those measures are most effective in securing definite and permanent results which are capable of favorably modifying the quality of the blood and its distribution.

Hydrotherapy affords a means by which the blood-count, leucocytosis, and blood movement, both general and local, may be influenced in a most positive and certain manner. By it the local blood volume in any bodily part, internal or external, may be increased or lessened to the extent of five or six

hundred per cent. No drug can accomplish this.

The blood-count may with certainty be increased twenty-five per cent or more by a general warm application followed by a short cold spray and friction.

The white cell count of the blood may be increased one hundred per cent or more within the same length of time by similar measures.

The blood-pressure may be raised or lowered within two to fifteen minutes by suitable hydiatic applications, massage, or other physiologic means, and to the extent of twenty to sixty millimeters of mercury.

One of the most remarkable characteristics of the physiologic method is that the applications may be repeated as frequently and as many times as may be needful or desirable, and with increasing rather than lessening effect, for the body never becomes habituated to physiologic applications as to the use of drugs. Indeed, the intensity of the vital response increases as the patient improves in general vigor.

The measures by which improvement in the quantity and quality of the blood is secured, are chiefly the following:

1. By feeding of foodstuffs which are rich in iron and hemogene, and those salts which increase blood alkalinity. The great value which attaches to the subtle substances found in the juices of raw fruits and certain vegetables is not overlooked.

2. Special attention is given to the improvement of the digestion by adaptation of the food to the individual's conditions, and the application of such measures as are known to aid gastric secretion and motility.

3. The daily ration is carefully balanced to the patient's needs, so that no energy shall be wasted in the elimination of useless material.

4. All possible sources of autointoxication are suppressed, especially intestinal putrefactions. This is accomplished, not by drugs, but by an antitoxic dietary and various bowel-cleansing processes.

5. Hydiatic measures known to be capable of powerfully stimulating hematogenesis are systematically employed.

6. Application is made of such measures as will increase the opsonins of the blood, an important index of blood quality as well as one of the chief means of defense.

The increase in the alkalinity of the blood which is accomplished by special regulation of the dietary with this end in view, is one of the most effective means of accomplishing this.

The natural resistance of the body must be increased by the application of tonic hydiatic procedures, the superior value of which for this purpose is one of the best-established facts in therapeutics.

Exercise, applications of electricity, massage, and other physiologic means, including open-air and cold-air methods, assist in accomplishing this.

INCREASING VITAL RESISTANCE

Laboratory research and clinical experience have shown that vital resistance may be increased—

1. By the application of tonic hydiatic measures.

2. By means of exercise, massage, and whatever promotes blood movement.

3. By the improvement of metabolism which follows suitable applications of electricity as well as hydiatic applications and exercise.

4. By the improved oxidation and elimination of toxins resulting from the breathing of cold air and the outdoor life.

5. By a low-protein dietary, whereby is secured a very great reduction in the amount of toxic protein wastes and putrefactive products, thus clearing out the tissues and improving the quality of the lymph which bathes the tissues.

6. By the employment of special food preparations containing antitoxic ferments, such as yogurt. Yogurt is also administered in concentrated form in capsules.

LIMITED USE OF DRUGS

Although no exclusive system is acknowledged or followed, drugs are little used, for the reason that in almost every instance their resources have been quite exhausted before the patient arrives at the Sanitarium; and for the further and still more important reason that little permanent good can be accomplished in the majority of chronic cases by any remedy which stops short of the thoroughgoing body reconstruction which can be accomplished only by physiologic means.

Most drugs can be relied upon to accomplish little more than palliation. With this idea, such drugs are employed as may render service, but very sparingly indeed; for it is never forgotten that drugs do harm as well as good, and the limited period of time which the patient can spend at the institution makes it of the highest importance that no time shall be wasted, and that a foundation for permanent health shall be developed as rapidly as possible by such means as effect improved tissue changes.

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ARTICLES OF ASSOCIATION OF THE MICHIGAN SANITARIUM AND BENEVOLENT ASSOCIATION

THE following Articles of Association show the legal standing of the Battle Creek Sanitarium and the basis upon which its work is carried on:

STATE OF MICHIGAN,

COUNTY OF CALHOUN, ss.

We, the undersigned, desiring to become incorporated under the provisions of Act No. 242 of the Public Acts of 1863, entitled, "An Act for the incorporation of hospitals or asylums in cases where valuable grants or endowments have been made to Trustees for such purposes," and the Acts amendatory thereof and supplementary thereto, and having received and having now on hand the gift of the sum of Seven Thousand Dollars (\$7,000) as a founding and endowing fund for the hospital and asylum as specified in the instrument of gift annexed hereto, and being duly authorized, qualified, and directed to effect this incorporation, do hereby make, execute, and adopt the following Articles of Association, to wit:—

ARTICLE I.

a. The name assumed by this corporation and by which it shall be known in law is,

MICHIGAN SANITARIUM and BENEVOLENT ASSOCIATION.

b. Said corporation is to be located in the city of Battle Creek, Calhoun County, Michigan.

c. The period for which said corporation is incorporated is in perpetuity, or, if by the Constitution of the State of Michigan and the statutes of said State governing said corporation, its period of corporate life can not be in perpetuity, but can be for only thirty years, then the period for which said corporation is incorporated is thirty years.

That is to say,—the incorporators hereof are desirous of effecting an incorporation which shall continue for the longest period possible under the Constitution and statutes of this State, and inasmuch as said corporation is one not for profit-earning or dividend-paying, and in or out of which no corporation or member can ever have, or hope to have, any money or property benefit whatever, and inasmuch as said incorporators are advised by their legal counsel that owing to said fact and the fact that said Act is silent upon the matter of corporate life, it may well be held by the courts of this State that this corporation is, as to such corporate life, within the rule laid down by the Supreme Court of Michigan in the Kent County Agricultural Society vs. Joseph Houseman, 81 Michigan Reports, page 609, and other kindred cases.

Therefore, the declaration as to the corporate life of said corporation is made as hereinbefore set forth, so that this corporation have perpet-

ual life upon its incorporation, if the Constitution and statutes of Michigan permit the same.

ARTICLE II.

The objects of said corporation and other matters germane and auxiliary thereto, are as follows:—

To found a hospital or charitable asylum within the State of Michigan for the care and relief of indigent or other sick or infirm persons, at which institution may be received also patients and patrons who are able to and do pay for the benefits there received, and which institution shall devote the funds and property acquired and received by it from time to time from all sources, exclusively to maintaining itself, improving its condition and facilities, extending its benefits and usefulness, and facilitating and promoting its purposes, by such sanitary, dietetic, hygienic, and philanthropic reforms and efforts as are germane or auxiliary thereto; all of its said purposes being un denominational, unsectarian, philanthropic, humanitarian, charitable, and benevolent, and in no manner directly or indirectly for private profit or dividend paying to any one.

ARTICLE III.

The names of the Trustees hereby incorporated are,—

JOHN H. KELLOGG,	LYCURGUS MCCOY,
DANIEL H. KRESS,	HOWARD F. RAND,
GEORGE A. IRWIN,	GEORGE H. MURPHY,
WILLIAM H. HALL,	JOHN S. COMINS,
DAVID PAULSON,	
CHRISTIAN M. CHRISTIANSEN,	

all of the city of Battle Creek, Calhoun County, Michigan.

ARTICLE IV.

The number of persons who shall constitute the permanent Board of Trustees of this corporation, the mode of election or appointment of the first Board of Trustees, the time for which the Trustees shall be elected or appointed, and the mode in which their successors shall be elected or appointed, and other matters germane thereto, are as follows:—

FIRST.

The number of Trustees of said corporation as at first named, and permanently, shall be ten.

SECOND.

The mode of appointing the first Board of Trustees shall be as follows, viz.:—

Immediately after the due organization of this corporation, the Trustees so incorporated shall meet and proceed to elect from their number five Trustees to hold until their successors are elected at the annual meeting to be held in 1898, and five Trustees to hold until their successors are elected at the annual meeting to be held in 1899.

Provided, however, that if at the time of such election any of said Trustees be dead or inca-

pacitated, then at that extent the remaining Trustees incorporated, may choose others to make up said ten Trustees.

At the annual meeting held in 1898, five Trustees shall be elected to serve two years, and at the annual meeting held in 1899, five Trustees shall be elected to serve for two years, and so on, so that there shall be an election each year at the annual meeting, of five Trustees to hold office for two years. All Trustees shall continue in office until their successors are chosen; and the meeting for the election of Trustees shall be held annually, and shall be called in such manner as the Trustees shall fix in the By-Laws. All vacancies in the Board by death, resignation, or otherwise, shall, for the current year, be filled by the Board. Resignations shall be made to, and accepted by, the Board.

THIRD.

As to the mode of appointment of Trustees to succeed those so selected as the first Board, we do fix the same as follows:—

There shall be a body of Electors or Constituents, to be known as Members, who shall have the qualification hereinafter prescribed, and who alone shall elect the Trustees to be elected at the corporate meetings.

At all meetings of the Members duly called, a quorum for the transaction of the business to be done shall consist of such duly qualified Members as are present and voting.

FOURTH.

Members shall be of two classes, viz.:—

Permanent Members and Annual Members.

The following are hereby declared to be the conditions upon, and subject to, which (and not otherwise) persons may become or remain Members of this Association; and these conditions shall be set forth in the following form in a proper book (entitled Declaration of Principles concerning, and Statement of Conditions of Membership in, the Michigan Sanitarium and Benevolent Association), and be signed by each Member as evidence of his irrevocable consent hereto; viz.:—

I.

As a condition of becoming and being a member of the Michigan Sanitarium and Benevolent Association, I declare and consent that the objects of this Association are and shall be:—

a. The maintaining of a hospital and charitable asylum within the State of Michigan for the care and relief of indigent or other sick or infirm persons, at which institution there may also be received and cared for, patients and patrons who are able to and do pay for the value there received, and which institution shall, with the property acquired by it from time to time from all sources, maintain itself, better its condition and facilities, and use all its said property and funds faithfully and exclusively for its lawful purposes, and not in any manner for profit or dividend-paying.

b. The performing of such work and acts as

Art Needle Work

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it is allowed by the State to perform, with its property and funds, and required for its main and direct purpose as aforesaid, of an undenominational, unsectarian, humanitarian, and philanthropic nature, and also such work and acts so permitted as aforesaid, as are in the line of sanitary, dietetic, dress, and other hygienic and temperance reforms, by classes, lectures, and publications, and other appropriate means, and also such work and acts so permitted as aforesaid, as will oppose the use of tobacco, tea, coffee, and other narcotics, as well as of alcoholic liquors, disseminate the principles of social purity, find homes for homeless children and outcast men and women, and care for the aged and infirm, train and send out missionary physicians and missionary nurses, who shall engage in the promulgation of the principles of hygienic and temperance reform and Christian philanthropy, and enter upon various lines of work so permitted as aforesaid, for the relief and betterment of the ignorant, unfortunate, and degraded, and the suffering, both rich and poor.

All of which work and acts shall be undenominational and unsectarian and purely charitable, benevolent, Christian, and philanthropic, and all of which shall be done with the means of said corporation not needed for its main and direct purpose, and all of which shall be without profit or dividend, direct or indirect, to the Trustees or any of the Members or Constituency or Electors of said corporation.

2.

I declare my belief in God, in the Bible as the inspired word of God, and in the principles of the Christian religion, and express my sympathy with all who are of like mind, without distinction of creed or denomination, and desire that as far as this Association is permitted to do so, it shall co-operate with all such in every good work which has for its purpose the elevation and improvement of mankind.

3.

I further declare and consent that it is a condition of my becoming a Member of said Association, that at any meeting at which election of Trustees is had, and prior to said election, a two-thirds' majority of the members there present and voting may drop me from the roll and remove me from the Association, if in their judgment I am not in harmony with the principles of the work of the Association, or instead of dropping and removing me, I may, by a like vote, be suspended from all membership rights for such period as said vote shall fix.

And I further declare and consent that it is also a condition of my becoming and remaining a Member of this Association that the act of said members in removing or suspending me from membership shall be final, and that I have no right to and will not appeal to any Court of law or equity to question, prevent, or reverse such action or to recover any damages therefor.

4.

I further agree as a condition of my becoming and being a Member of said Association that I shall never have more than one vote upon any election, question, or matter on which I have a right to vote in connection with said Association; that if I vote, I must vote in person and not by proxy; and that no such mode of voting as cumulative voting shall ever be allowed in connection with said Association.

5.

I further stipulate that as a Member, permanent or annual, I have no property rights in said corporation or in any of its property or funds, and that the Trustees for the time being constitute the corporation.

I recognize the fact that it may be considered and held by courts, that under the Consti-

tution and laws of Michigan, said corporation is not limited in its life to thirty years, but has a perpetual or indefinite existence; now, however that may be, I stipulate, agree, and direct, that whenever said corporation comes to an end, be it by the limitation of its legal life, or by being wound up by statutory or other proceedings, or otherwise, the then Trustees by the majority vote of all the then Trustees, shall, in due form and manner, cause to be made a transfer of all the assets of said corporation, of every kind, name, and nature, to such other corporation as shall then be in existence to receive the same, and as will accept the same, and assume all debts, duties, and liabilities of said corporation, provided, however, that such receiving corporation shall be charitable and philanthropic in its objects and purposes and shall be nonprofit and nondividend-paying to any of its members, and which shall have for its aims substantially the same objects and purposes as the Michigan Sanitarium and Benevolent Association.

And I further stipulate, agree, and direct, if at any time it is the judgment of two-thirds of all the Trustees of the said Michigan Sanitarium and Benevolent Association, that the work, objects, ends, and aims of said Association, as expressed in its founding and endowing instrument and its Articles of Incorporation, can be carried on under some other Legislative provision now in existence or hereafter enacted, better and more satisfactorily than under the Act it is then operating and going on under, then, in due form and manner, a transfer may be made of all the assets of said Association, so as to bring them under the operation and protection of such other legislation, and take them out of the law under which said Association is then operating; provided, however, that such change over must preserve all legal essentials and spirit of the purposes of said Association, and make no material change in or addition to the declared principles and conditions of membership as herein expressed, and shall preserve to me the same membership, and right to membership, therein as I have herein.

(SIGNATURE)

(DATED)

On the occasion of his sixty-first birthday, some one sent Dr. Osler this verse:

"Brothers, I am sixty-one,
And my work on earth is done;
Peace should follow after storm.
Reach me down the chloroform!"

"Oh, Holy Light of all below,
Thou fount of life and fire—
Surpassing all the joys we know,
All that we can desire—
Stay with us, Love! and with Thy Light
Illumine the soul's abyss;
Scatter the darkness of our night,
And fill the world with bliss."

ARRIVALS

FOLLOWING is the list of arrivals at the Battle Creek Sanitarium for the week ending December 20: H. S. Wilcox, Pa.; J. W. Deaton, O.; G. N. Hale, Mich.; Leo Nussbaum, Ind.; R. M. Irbey and wife, Miss.; Henry G. Blake, Minneapolis; Arthur Adams, Ind.; J. Francis, Chicago; J. R. Van Dyke, Chicago; J. H. Clarkson, Chicago; Mattie Jordan, Tenn.; Mrs. R. S. Armour, Mich.; Miss Elizabeth Warren, Cleveland; H. A. Cutler, Ind.; A. B. Holbert, Ia.; Mrs. Edw. H. Perry, Niagara Falls; F. S. Sterling, City; S. L. Dankley, Mich.; A. C. Nicholas, Mo.; Wm. A. Wagener, New York City; G. M. Richards, Philadelphia; D. J. Hopkins, Mich.; Mr. and Mrs. M. B. Webber, Minn.; Lucius H. Gibbs, Mich.; Mr. and Mrs. S. R. Van Sant, Minn.; James F. Nichols and wife, Pittsburg; H. C. Elliott, Chicago; J. L. Leisening and wife, Pa.; J. I. Henderson, O.; Jas. C. Thornton, Wash.; E. T. Harris, N. J.; Mrs. C. E. Ely and Dorothy, Mich.; G. S. Barber, Mich.; S. F. Meguire and Frank, Ariz.; E. Lee Burdick, Wis.; H. L. Schneider, Cleveland; F. A. Sebring, O.; D. W. C. Dobie, Detroit; F. O. Belden, City; T. J. Norton, Chicago; Miss Katherine Norton, Chicago; Mrs. M. F. Jordan and F. Jordan, Tenn.; E. A. Drew, Ohio; Miss Ruth Whitney, Mo.; Mrs. Chas. Downie, Tex.; J. F. Morris and Miss W. Morris, Cleveland; H. L. Henrikson, Copenhagen; Mrs. C. G. Wilcox, Wis.; T. B. Pray, Chicago; W. W. Tarr, Chicago; Mrs. Henry E. Harman, Ga.; Mrs. C. G. Van Sant, Chicago; Iva L. Whitmer, Ill.; R. R. Hamilton, Pa.; Mrs. John D. Hamilton, Pa.; John Walkington and J. R. McClure, Pittsburg; Frederick Ward, Chicago; Mrs. Ella Crofford, Mich.; R. S. Armour, Mich.; John V. Fox, Chicago; F. D. Mateen, Ill.; J. W. Van Dyke, Chicago; H. H. Ashenfelter, Philadelphia; G. H. Hyland, Cincinnati; E. W. Majors, Texas.

News and Personals

S. F. Meguire, of Douglas, Ariz., is among the recent arrivals from the Southwest.

Frederick B. Ward, of Chicago, Ill., is taking much-needed treatment at the Sanitarium.

Mrs. Foy has gone to Manitou, Colo., to spend Christmas with her sister, Dr. Minnie Staines.

Christmas and New Year's Excursions

— VIA —

THE GRAND TRUNK RAILWAY SYSTEM

One and one-half fare for the round trip on all trains December 24, 25, 31 and January 1st. Return limit January 3rd, 1910. Please ask for full particulars.

L. J. BUSH, Passenger Agent.

J. S. Leisenning, of Altoona, Pa., a prominent attorney, is taking treatment in the institution.

Mr. and Mrs. M. B. Webber, of Winona, Minn., are taking rest and treatment at the Sanitarium.

J. W. Ditrich, a prominent merchant of Springfield, Ohio, is spending some time in the institution.

Governor and Mrs. S. R. Van Sant, of St. Cloud, Minn., old friends of the institution, have been again with us.

Miss Ruth Whitney, of Kansas City, Mo., is spending a few days with her sister, who is a patient at the Sanitarium.

Jas. C. Thornton, of Seattle, Wash., is again spending a time at the Sanitarium. Mr. Thornton is an old friend and patient of the institution and is always a welcome visitor.

H. E. Gregory and family, of Parsons, Kans., who have been spending the past few weeks in the institution, have returned to their home to spend the Christmas holidays.

Mrs. Celeste Carruth, wife of Dr. Carruth, of New Rhodes, La., left us the first of the week, after spending several months in the institution, taking much-needed rest and treatment.

Wm. A. Wagener, a prominent attorney of New York City, has entered the institution for a course of rest and treatment.

F. E. Muzzy, of Galva, Ill., has returned to his home to spend the holidays with his family. Mr. Muzzy has been a patient in the institution for the past few weeks.

The children of the Sanitarium employes and patients are taking a great deal of interest in rehearsing for their special Christmas exercises to be given in the Sanitarium chapel next Christmas morning. A very interesting program is promised.

The Sanitarium Sabbath School had election of officers last Sabbath and elected as officers for the ensuing six months: Dr. W. F. Martin, superintendent; Mr. W. C. Kellogg, assistant superintendent; Mr. Gaunce and Miss Elizabeth Neal, secretaries; G. H. Murphy, treasurer; and Wm. Robinson, chorister.

Dr. J. H. Kellogg returned on the 18th from a brief visit to Washington and other Eastern cities. His principal purpose was to be in attendance at the National Temperance Convention held under the auspices of the International Reform Association, where he gave an address on "The Verdict of the Twentieth Century on Alcohol." On one of the afternoons of the convention the company was entertained at a Sanitarium luncheon, which was pronounced a complete success. Dr. H. W. Wiley, Capt. Hobson and other prominent speakers contributed to the program.

The date for the soon-coming Medical Missionary Conference has been fixed for February 15, 16, 17. The prospects are bright for a very successful and important meeting. Correspondence to hand shows that the project is well received by all the missionary authorities, who promise co-operation. Invitations are being sent to many prominent missionaries now at home on furlough. The meetings will be held in the Sanitarium chapel.

The Missionary Rally held in East Hall Parlor on December 12 was of a particularly interesting character. The special feature was the prominence given to Y. M. C. A. work. Dr. Benton N. Colver led the meeting, and after the Bible lesson and appropriate remarks relative to the character of the work and its remarkable progress throughout the world, he introduced the first speaker. The program was as follows:

Mr. Geo. W. Leavitt—Y. M. C. A. in China.
Miss Hermann—Y. M. C. A. Foreign Publications.

Mr. C. A. Richmire—Y. M. C. A. Local Work.

Mr. Cheesebrough—Y. M. C. A. Bible Study.

Mr. Winjum—Y. M. C. A. Physical Work.

Dr. Julius Soper—Y. M. C. A. in Japan.

The meeting was not only one of great interest, but also one of much power. It gave one a new sense of the oneness of the world, and a fresh realization of the fact that the boundary lines between Home and Foreign work are fast disappearing under the blessed influence of our one Lord and Master.

Battle Creek Sanitarium School of Physical Education

A GREAT OPPORTUNITY FOR YOUNG MEN AND WOMEN. Expenses may be largely paid in work. Gymnastics—German and Swedish; Dietetics; Massage; Hydrotherapy; What to do in Accidents, Emergencies and Common Maladies; Medical Gymnastics. Anatomy and Physiology; Chemical and Anatomical Laboratory work; Large Indoor and Outdoor Gymnasium and Swimming Pools.



Large Faculty of able teachers and trainers. Course one year. Tuition full year, \$85.00; Board and Room, \$3.00 to \$3.50. A number of students may pay their way in work.

Mr. Horace Fletcher will give a course of lectures on vital economics, and Mr. John F. Stapleton, formerly of the Yale Gymnasium, a special course on theory and practice of Swedish gymnastics.

The next regular term (new class beginning) opens January 3, 1910.

Any who are interested will be sent illustrated announcement with further details on request. Address:

The Battle Creek Sanitarium School of Physical Education
BATTLE CREEK, - - - MICHIGAN

THE · BATTLE · CREEK · IDEA

Vol. III No. 4

BATTLE CREEK, MICH., DECEMBER 31, 1909

Price 2 Cents

Reception to the Doctors Harris

Eminent Honors Gained by a Sanitarium
Physician and Member of the
A. M. M. C. Faculty.

On the evening of December 21st, Dr. and
Mrs. J. H. Kellogg gave a reception to cele-
brate the return from Europe of Drs. Row-

Vital Force a Healing Power

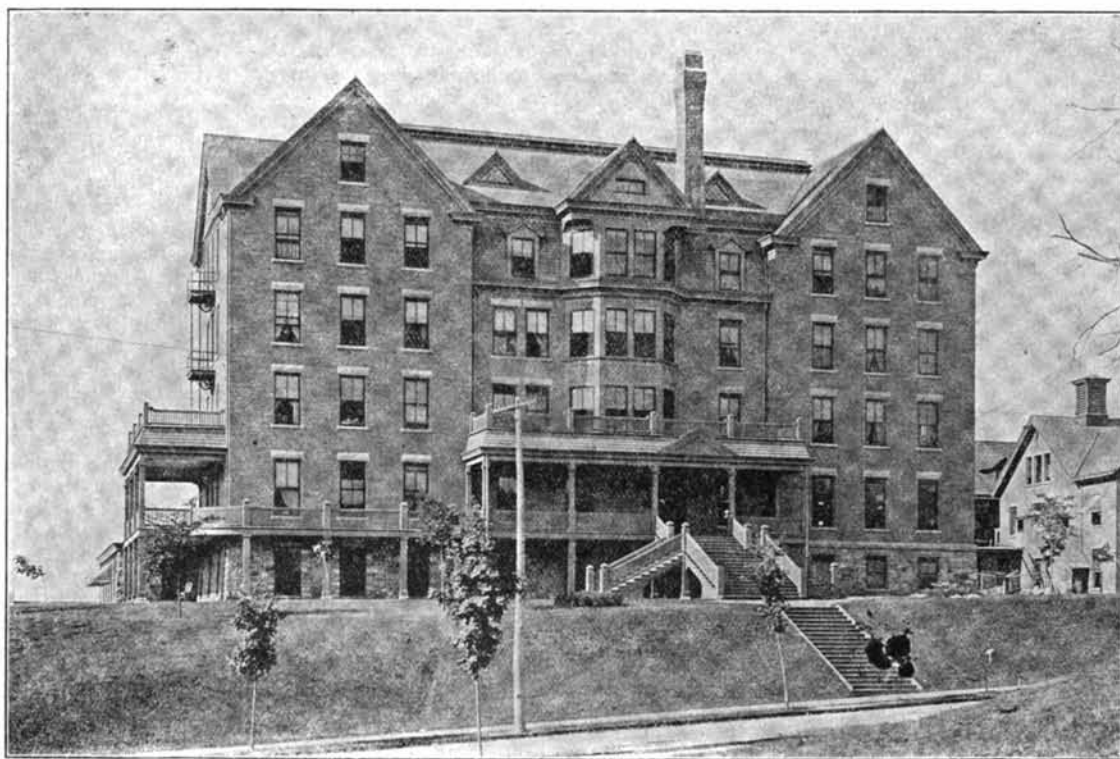
Parlor Lecture by Dr. Riley, December
22, 1909, Describing Cell and
Organic Life

This is a very large subject and I do not
expect to cover it to-night, but we will talk
on some of what may be perhaps the most

"Sanitarium" a Bit of History

Doctor Kellogg in a Recent Parlor Lec-
ture Gives an Inside View
to Outsiders

THE word "Sanitarium" is not etymolog-
ically correct; it is a coined trade word, and
I was there when the word was coined. When



EAST HALL—ONE OF THE ANNEXES OF THE BATTLE CREEK SANITARIUM

land H. Harris and Elizabeth Kerr-Harris.
They left us last spring for the purpose of
taking post-graduate studies in the medical
schools of Edinburgh, Scotland. In addition
to taking post-graduate work, Dr. R. H. Har-
ris successfully passed the exacting examina-
tions required for the Fellowship in Surgery,
and on the eleventh of December was elected
a Fellow of the Royal College of Surgeons of
Edinburgh, the highest degree to be ob-
tained in medicine and surgery.

(Continued on page five)

important points in this line, considering
them briefly.

First of all, I think it is well for us to get
clearly in our minds some important prin-
ciples in reference to health, and in order to
do this we must first know something about
the body. Our bodies may be considered as
a community of living cells. I presume in
your lectures here you have heard a good
deal about what we call a cell—C-E-L-L. A
cell is to the body what a brick is to the

(Continued on page four)

I took charge of this institution thirty-three
years ago, there were twelve patients, twenty
helpers, and one doctor. The name of the in-
stitution was the "Western Health Reform
Institute." I thought that was enough to
scare any neurasthenic away. So the first
thing I did was to pull the name off and be-
gin to look for a new name.

I found the word "sanatorium" in the dic-
tionary, the definition of which was, "a
health resort in England for invalid sol-
diers." We did not expect to have many

Original from

UNIVERSITY OF MICHIGAN

soldiers here; it was not going to be a soldiers' resort; it was going to be a place for the training of people into health. We were going to have a new thing, and we had to have a new name. So I found it convenient to change two letters. Instead of "sanatorium," I made it *sanitarium*, and I thought I had an excuse for it in the fact that while the original word from which sanatorium is derived is from the Greek, there is a word derived from that by the Latins,—*sanitas*, from which we have the word sanitary, so I said I would derive another word from it, and make it *sanitarium*; and that is the way the word "Sanitarium" originated. It was not then a dictionary word, as I said, although the dictionaries now contain it.

NOT A CEMETERY

A literary friend of mine, when he saw our circular, said to me, "What in the world have you done—put a name on your institution that nobody can ever possibly understand? Why, there is no such word in any language." And I said to my friend, "I am aware that this is a new word, but we are going to have a new thing here, and we must have a new word for the new thing. But we will explain it to the world, so they will after a while find out what it is." And that is what we have been doing ever since. The people in this part of the country were, I think, never quite so confused as the folks at a certain place in Florida. I was down there twenty years ago for a short time. As I arrived at the station, I met a colored man who wanted to take me up to the hotel. As we went along to the St. James Hotel, he explained to me that this place used to have another name. It was called the St. James Sanitarium. I said, "Why did they change the name?" "Well," he said, "I'll tell you, boss. You know the fellows down to the depot couldn't pronounce the word very well, and they used to cry out, 'All aboard for the Sanitary,' and by and by the newsboys got to calling out, 'All aboard for the cemetery.' So it kind of seared folks off."

A good many places have sprung up about the country, and have put the word "sanitarium" out as a sign, just about as appropriately as the place that was denominated a cemetery. All through the West, and in some places in the East, too, a hotel starts up and fails to make a success, then puts out the sign, "Sanitarium," and its owners wonder why it does not flourish right away. There are a great number of capacious buildings on lonely hillsides where there is plenty of the most delightful scenery, that could be bought very cheap, that have originated with the idea that all in the world they had to do was to put up a building and put out the name Sanitarium, and watch it grow.

SANITARIUMS ARE NOT MONEY-MAKERS

It is just as well for the world to know, and if they have not found it out yet, they will sometime, that there is not any money profit at all in running sanitariums. It is the last business in the world I would ever go into to make money. It is impossible to make money with a sanitarium and do honest work. But some of you will say you are paying a good bit of money here, and you are; but, my friends, as a money-maker this is the last thing in the world. Our city is

trying to force us to pay taxes. We decline to pay taxes, and one reason is, because we simply can not do business if we have to pay taxes. Not simply because the taxes would bankrupt us, but because if we do pay taxes, this can not be regarded as a charitable institution. We want to be recognized by the city, by the State, and by everybody as a charitable institution, and if this is not so recognized it is utterly impossible for it to be run as such. If every manager, doctor, and nurse in the institution did not know that this institution is a charitable institution down to the very core, they could not be induced to work here for the prices that are paid them.

All our thirty doctors are talented people, thoroughly educated in the best schools in this country, and many of them have studied in the Old World. One of our doctors has just received the highest degree that can be obtained in the profession. The persons that receive these honors have to be subjected to the most critical and thoroughgoing examinations. He and others are at work here for a great deal less money than some of you business men pay your clerks.

DOCTORS WHO ARE NOT WORKING FOR MONEY

The same thing is true of all of our doctors. There is not a doctor in this institution who has ever received over \$75.00 a month until within a comparatively short time. Our doctors have to board and support themselves, and there are no perquisites whatever. They work as hard as they can, and not only by day, but are on call day and night, all the time, with one month's vacation a year, which in most cases is not taken at all. It would be utterly impossible to get doctors who are capable of going out and earning ten thousand dollars a year, and with a great deal less work, with not half the responsibility and anxiety they have here, to labor in such a way if it were not for the fact that the work of the institution is charitable; and that it has a philanthropic mission in the world; that it is trying to lift the burden of humanity; that it is trying to stay that tide of human deterioration and race degeneracy that is sweeping over the civilized portion of the race the whole world over. That is the only reason why we can keep these workers together.

People often say to me, "How do you get such fine young women here, and such fine young men for nurses?" You come into contact with them in the bathrooms, and in the sick-room, and you know the quality of them. The way we get them is that they have become interested in the principles, and in the mission of the institution, and they are drawn here by it. We do not go out and hunt them up; we could not select them; but it is the character and the aims and principles of the institution that act as a selective force, and bring to us the right kind of folks; they are attracted just as a magnet attracts steel; it will not attract brass or copper or clay; it attracts only iron; so this institution, because of its character, draws this kind of people here.

For my part I am very glad of a chance to work here, and work as hard as I can, all day and half the night, and all night if necessary; and I am glad to do it just for the

privilege of it. I am glad to work without salary. For many years I never received a cent of salary. I think I had a salary appointed to me of one thousand dollars a year at one time, but I never paid any attention to it, because it was covered, and a good deal more, by that which I was putting into the institution. Later I think there was a salary of eighty or ninety dollars a month put down for me on the books, but never a penny have I received of it. Once in a while a poor soul comes along who has nothing to pay, and has to be helped along, and that fund is drawn upon for that purpose. The kind of work I am doing, I would not do for pay. Nobody could hire my colleagues to work as they work, for pay; they could not be hired to do it. The compensation is something a great deal better than money.

WHAT IS THE COMPENSATION?

The satisfaction of seeing roses coming out on blanched cheeks, of seeing the sparkle coming back into dull eyes,—to see people coming here sick, weary, worn and sad, then to send them away happy, fills our souls with joy. And when they say to me, "Doctor, I can not thank you enough for what this institution has done for me; I am so glad I came here, and I am going home so well that I feel like another person,"—I tell you, that is tremendous compensation; it is splendid pay, and we are thankful that we have a chance to be connected with a set of principles so splendid and capable of doing so much in the world. That is why this institution exists, why it is here; and it could not be carried on upon any other basis. The money that is received would not be sufficient to pay the running expenses if we had to pay these doctors and nurses ordinary wages,—we positively couldn't do it. The little margin of thirty or forty thousand dollars that we have here at the end of the year, to apply on our big debt, would all be eaten up, swept away, and forty or fifty thousand dollars more, if we had to pay our doctors and other help anything like adequate salaries.

We have more than thirty doctors. Now, suppose these doctors, instead of getting on an average less than one thousand dollars a year apiece, were to receive a moderately reasonable price, say \$2,500, which would not be an extravagant salary. That would be just \$75,000, or an addition of \$45,000 to our expenses. And then suppose our 250 nurses should have ten dollars a month more than they now have; that would increase our expenses \$30,000. Take the managers, and suppose that they received full compensation, another \$10,000 would be required, a total of \$85,000 a year increase in salaries alone would be required when this ceases to be a charitable institution. Now, the largest gain for any year, ever recorded here, was \$71,000, which, you see, would be entirely swept away if reasonable wages were paid to our employees. Just the moment this institution can not have recognition as a charitable institution, just that moment it will have to be shut up, because it can not run in any other way.

AN INVESTIGATION

When this institution was burned in 1902, while we were waiting to find out what we

should do, the leading citizens and the common council came to see us; a committee from the Business Men's Association waited upon us, and said, "What are you going to do?" We said, "We do not know." "Are you going to rebuild?" "We haven't anything to rebuild with; we are burned out; and we have just barely insurance enough to pay our debts and leave us even with the world. That is where we are." The citizens generously offered to assist us. The first thing I asked was that they should appoint a committee to investigate our books and all our affairs, and decide whether this was a charitable institution or not; whether it ought to be encouraged and recognized as a charitable institution. The city appointed their committee; the committee made an investigation, and the result was that there was a mass meeting of the citizens held in the largest audience room in the city, and business men stated their regrets that they had not appreciated the fact that this institution was really a charitable institution; that they had been all the time laboring under the suspicion that some people up here were getting rich out of it; and when they found the truth about it, publicly acknowledged their profound conviction that this institution was all it claimed to be.

The city set out to raise \$50,000; and what was raised, with the money raised here by some others, amounted to something over \$70,000. This was the nucleus with which this building was started, and the balance was borrowed; and when we got through we had a debt of over a half million on our hands, a thing that we did not expect to have at all. We had plans for raising the money, but they fell through. The denomination with which this institution had been associated, through its central committee undertook to help us to rebuild. I had written a book, and they agreed to sell it, and all the profits were to go to our building fund. They were to sell 500,000 books, which would have given us \$500,000, and on these conditions we went ahead. By and by the question of who was going to control this institution came up. Was it to be controlled by the church, or by its own constituency and board?

NOT A SECTARIAN INSTITUTION

We insisted upon its remaining a non-sectarian and undenominational institution just as it was, and that it never be put under the control of any church, because if it were it would be used for church purposes, it would not be a scientific institution, and it would not be carried on upon the broad Christian policy which ought to be maintained. Immediately they decided to have nothing to do with it. Not only was the institution and the plan for raising the money dropped, but we were subjected to the most bitter and unrelenting persecution to destroy our work and our credit, to frighten young people away, and to prevent any from coming here, to make it impossible for us to get hold of young people. Predictions were issued against us,—that the institution would soon be destroyed by some calamity; and so forth.

I should not mention these things were it not for the fact that they were all done in public, in this city, and in such an open way

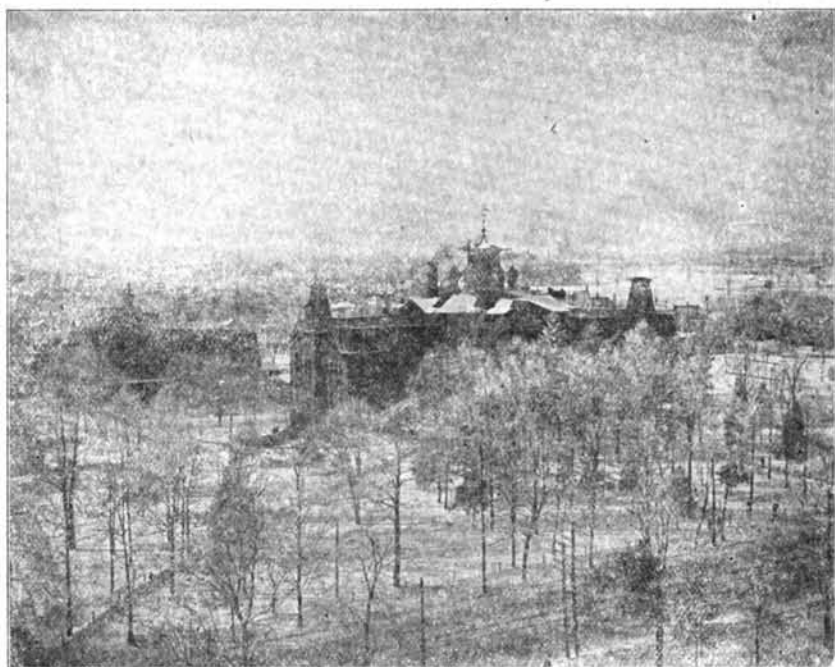
that the whole town and country knew all about it. Then, to add to our difficulties, after we were established here, our building was up, and things were going on, we found to our astonishment that the common council of this city had been induced to begin a suit against us to compel us to pay taxes from which we were exempt by the law of the State. So the city is pursuing us along this line and the suit you have seen something about in the papers recently was a part of that proceeding.

I do not know how this suit is coming out. I do not think that it makes any difference to me how it comes out. I know just one thing, that when I was a boy twelve years old, my mother asked me one day, "What are you going to do, John, when you are grown up?" And I said, "Mother, I do not know;

just as quickly as possible and get to work; and I should not feel that any obstacle had been put in my way; I should simply feel that I had a place somewhere else, where I was needed more than here; and that is the place I should at once be hunting for.

NOT DISTURBED OVER THE SITUATION

So I am not at all disturbed, and I do not want anybody else to be disturbed. The Battle Creek Sanitarium has been growing up here, amid a great many perplexities and difficulties, and it has passed safely through them during these years simply because it had a mission in the world. It is the most gratifying thing to see so many thousands of men and women becoming interested in the principles that have sustained this work and carried it on. If now in the mind of a wise



COLLEGE, LABORATORY, AND OFFICE BUILDING OF THE BATTLE CREEK SANITARIUM AS SEEN AT PRESENT FROM THE MAIN DINING-ROOM

but I will be anything but a doctor." Shortly after that I saw a picture one day on the open sky, a picture so vivid, so bright. I can see it at this moment. I saw myself away out in a desolate place, and a whole lot of poor boys and girls and needy, dependent, wretched people coming along, and there was a little schoolhouse, and I stood in the door beckoning to them to come in; and I knew from that moment what I had to do. That picture has followed me, and I determined that I would devote my life to working for my fellowmen. I never wanted to do anything else. I never had the slightest ambition for anything else. So I have said that whatever happens, however this suit turns out, it will not make any difference to me, because my purpose is still to work for the betterment of my fellows in such ways as I have opportunity. If Providence should close up the door to me in this town, and this institution should be obliterated, I should feel that there was something for me to do somewhere else, and I must find that place

Providence and the people of this community this work has gone far enough here, we are content. If it be right to continue it, we shall rejoice in that privilege.

FOOD COMPANY BANQUETED

ABOUT two hundred guests were present at the annual banquet tendered to the workers of the Kellogg Food Co. by its management, Tuesday evening, Dec. 28, in the Sanitarium banquet hall. The tables were handsomely decorated, and an epicurean feast was served, consisting chiefly of the company's own products. Dr. Kellogg presided as toastmaster. He called attention to the gratifying progress of food reform and the remarkable increase in the Food Company's business. Judge Arthur spoke of the great good the company was doing through the spread of wholesome, health-building foods, and the heads of departments responded to the toastmaster's call. A flashlight picture was taken at the close of the banquet.

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VOL. III DECEMBER 31, 1909 No. 4

HOW WE TAKE IT

THE old saw ran:

"This world is not so bad a world as some would like to make it;
And whether it seems bad or good, depends on how we take it."

And so it is with each one,—life becomes largely what we make it. A good Providence gives us life and provides for its preservation and comfort. The means of a happy, pleasant, successful life are placed within easy reach, so that no one should fail of securing the best there is in life. It depends first upon our properly estimating real success in life. There are ways that seem right and prosperous which produce death and suffering, but the real paths of peace and joy are open and accessible to all.

The conditions of true happiness and contentment are found in simplicity. Simplify the ideas of life, simplify the demands of the body, simplify the home and the conventionalities of society; make the conceptions of life simple, and become natural in our relations and conduct, and then we shall have eliminated most of our troubles. Simplicity in diet, temperance in eating and drinking, abstinence from those harmful things that irritate and excite the system, creating heat in the blood and petulance in the temper, will go far toward making life the delightful thing that our Heavenly Father designed it to be. Fretting and stewing over foolish or fancied troubles, scolding the weather, and working one's self into a fervent sweat in trying to fan away the heat while the inward fires of discontent are briskly burning, is a vain way to keep cool.

Put yourself at peace with God and man, learn to count your blessings, live simply and don't fret; and see how happy and joyful the whole world becomes. Live in the future, not in the past; enjoy the present, not croak over troubles you have never seen; look up, not down. Once in a while the wheels may strike a stone, but the road is not all stones. God has helped you hitherto, is helping you now, and will ever live to help and bless those who appreciate the good things they have.

VITAL FORCE A HEALING POWER

(Continued from page one)

brick house. There is this difference, however, the cells in the body are all different sizes, different shapes. Bricks in a brick building are usually all the same shape and size, or nearly so. These cells, then, are the units of tissue out of which the body is made or formed. In the body we have brain cells, nerve cells, making up the nervous system; we have muscle cells, liver cells, etc. Each of these cells has an individual work to do, and the work of the body is the aggregate of the work of its cells.

These cells again may be compared to members in society. In society we have our artisans, our physicians, our merchants, each individual having his particular work to do. And by this division of labor in society, better work is accomplished than as if every one attempted to do all things. And so we have the same division of labor in the body. Certain organs are set aside for doing a particular work; other organs are set aside for another kind of work. When all these cells and all the organs which are composed of the cells do their work properly, then one has health. When these cells get going wrong, and do not do their work properly, then we have disease.

Disease, then, is some abnormal action or activity on the part of some organ or organs of the body. Diseases are usually separated into two great divisions. One class of disease we call functional; that is, it is a disease where the function or the work of the organ is disturbed, becomes abnormal, without there being any apparent change in the tissue of the organ. An organic disease, on the other hand, is one which is attended with organic and apparent changes in the tissues. This distinction of functional and organic disease is in a sense somewhat arbitrary, because there probably is no change in the function of an organ without there being some change in its structure, though we are not always able to find the change which may be present in the structure of the organ.

Pathology has to do with the study of the cause of disease, with the study of the symptoms or the manifestations of disease and of the study of the changes which occur in the tissues as the result of disease. Pathology is a comparatively recent science, particularly with reference to the changes found in the tissues. So, as we go over medical literature, we will find the older diseases are named almost entirely from symptoms, or the outward manifestations of the disease, from the signs and disturbances that the physician can see. But in more recent times our diseases are named from the changes that are found in the tissues and the organs—at least they ought so to be named. So we are always finding out something new with reference to the changes produced in the body by disease, and there are probably a great many functional disorders at the present time that later will pass over into what are called organic diseases.

The question of getting well depends upon some important principles. I imagine that when the Lord made man in the beginning he gave him a full measure of what we call

life, of vitality, of vigor, of health. But the measure of this principle has been gradually waning in the human family, so at the present time we find very few people that are perfectly healthy. In the beginning, man had, say one hundred per cent, or the full measure of this vital force, or vigor, or health. At the present time, if we should examine different individuals in society we should find some people with fifty per cent, some with twenty per cent, some with ten per cent, and some that have less than that. These figures are simply used to represent the idea. The point is that at the present time no one enjoys a full degree of health; no one has the same vigor and vitality that man undoubtedly had at the beginning when he came from the hand of the Creator. That the human family has lost this vigor and vitality is undoubtedly due to their habits of living. This is the only reason that we can ascribe to this result; the human family have been dissipating and wasting this life principle. That force is the thing that keeps us alive, and it is this that heals us when we are sick. This is a very important principle for us to get hold of here at the Sanitarium, where we are seeking health, to understand that the thing that heals is this principle that is inside the body, and not something that is on the outside or that can be taken in from the outside.

The thing that heals is this vital force that resides in every cell, in every fiber, in every organ of our bodies, and this is the only thing that heals. The diet, and the physician, and the nurse are simply to clear the way and give this vital force a chance to work. This is the duty of the physician, and of the nurse, and any other person who may be useful in helping a sick man to get well. Now, this is fundamental. A physician does not cure disease, a nurse does not cure disease, medicines do not cure disease. All these do not cure. Nothing cures only so far as it is helpful in aiding this vital principle in its work, this vital force. There are a great many things we can do to bring into greater activity this vital force.

CHRISTMAS AT SANITARIUM

THE Christmas season was well observed at the Sanitarium this year, although the family of guests and helpers was as usual somewhat depleted by the number going home and elsewhere to spend the holidays. Every effort was put forth to make it pleasant and interesting for those who remained. The celebration began on Christmas eve by a song service in the lobby, which was beautifully decorated with flowers and greenery. The lobby was seated full of chairs and a large company of people assembled, joining

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heartily in the old-time Christmas songs led by Mr. Drever at the piano, and accompanied by the chapel choir. Mrs. Rice, of this city, rendered two beautiful songs and the hour passed most pleasantly.

Christmas morning the Sabbath School occupied the entire forenoon program, the 11 o'clock hour being filled with songs and recitations which did credit to the promoters and to the young artists.

The dining-room was appropriately decorated and a most beautiful and healthful Christmas dinner was set before the delighted family, of which the following is the menu:

Vegetable Soup		
Ripe Olives	Radishes	Sanitas Wafers
Protose Roast with Dressing Piquant Sauce		
Baked Nuttolen		
Cranberry Jelly		
Baked Potatoes	Brown Potatoes	
Corn on the Cob	Bermuda Onions	
Red Raspberry Nectar	Nut Buns	
Tomato Jelly Salad		
Fruit Cake	Sliced Pineapple	
Chocolate Crisps	Browned Almonds	
Caramel Cereal		
Oranges	Kumquats	Grapes

In the afternoon a brief song service was held in the parlor, to which Mrs. J. F. Byington contributed a very beautiful Christmas song, and this was followed by a vivid description of a recent Christmas evening in Bethlehem by one who was an eye-witness, describing the famous churches in Palestine, especially the Church of the Nativity and the city of Bethlehem and the great throngs of pilgrims which crowd the city at that time.

The Christmas tree came on the following evening, having been largely prepared on Friday, the finishing touches being put on in the early part of the evening. A large tree stood at either corner of the rostrum connected by an evergreen arch. Both the trees and the arch were brilliantly illuminated by colored electric lights, while from the gallery railing above beamed a scintillating electric star of the brightest light. In addition to the flowers and greenery, the gymnasium was tastefully decorated with bunting, forming a most beautiful and attractive scene.

When the doors were opened at 7:30 the waiting people quickly filled the large hall and gallery in every part. Suddenly the arc lights were turned out and the illuminations of the trees and arch were turned on, forming a spectacle of beauty long to be remembered and calling forth from the audience vigorous and hearty applause.

A program of music and declamation was then given, at the close of which the Haskell Home children sang a song. Then approaching sleigh bells announced the arrival of Santa Claus, who came into the arena evidently in a very joyous frame of mind. A sleigh drawn by six little human reindeers dashed up to the front loaded with a gigantic snowball, which was filled with appropriate presents for the children of the Haskell Home. These were distributed, and after that followed the general distribution of presents, which was satisfactorily and expeditiously performed from a number of tables where the gifts were classified.

After this exercise the Christmas celebra-

tion was brought to a close. Everybody expressed themselves as highly pleased and profitably entertained.

RECEPTION TO DOCTORS HARRIS

(Continued from page one)

After finishing their work in Edinburgh the doctors visited London and Paris. Dr. R. H. Harris made a trip to Vienna and Berlin, and in all of these places he improved his opportunities for seeing things of medical in-

country. Perhaps a dozen British physicians possessing the degree have taken up their residence in the United States, and the degree has been conferred as an honorary degree upon seven or eight of the leading surgeons of this country, but Dr. Harris is one of the very few Americans to obtain the degree by examination.

Very naturally Doctor Harris' friends feel much elated over his remarkable achievement, and the friends of the American Medical Missionary College, of which Doctor



terest. After visiting some points in the Eastern States, they reached home on the 14th instant and were warmly welcomed by their many friends, who had watched their progress with much interest.

The degree obtained by Dr. R. H. Harris in Edinburgh is held by but few men in this

Harris was a student and graduate and in which he has since acted as instructor and registrar, congratulate the school for the eminent honor that is thus conferred upon it. As for Doctor Harris himself, he bears his honor with characteristic self-forgetfulness and discourages any prominent mention

Battle Creek Sanitarium Periodicals

Three journals are published at the Battle Creek Sanitarium:

The Battle Creek Idea (Weekly).....	\$1.00	per year
Good Health (Monthly).....	1.00	" "
The Medical Missionary (Monthly).....	.50	" "
These papers will be combined at the following prices:		
Battle Creek Idea and Good Health.....	1.50	" "
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being made of the facts. But without any flattery, we deem it a sufficient occasion for extending to Doctor and Mrs. Harris our hearty congratulations, and extending the same to his Alma Mater, since the foundation for his accomplishment was gained in a four years' course in the American Medical Missionary College.

The occasion referred to above was, therefore, a most happy one. Most of the physicians and a number of the managers of the Sanitarium were present. An hour was spent in social intercourse, after which Doctor Kellogg presented the guests of the evening with a few appropriate remarks, during which he said:

"I feel very much gratified to welcome you all this evening for the purpose of extending to the Doctors Harris our hearty congratulations. I am also glad that it affords us another opportunity for social intercourse and more intimate acquaintance. I am impressed that our social opportunities are too few. We are engaged in a very busy life, and in the pursuit of our duties we are apt to forget the social amenities and relations of life, especially of those who are bound together by mutual bonds of interest as we are. I wish that we might find time for more frequent gatherings of this kind. It would be difficult to find anywhere an institution in which the workers are more inseparably bound together by mutual interest than we are, and we should foster this spirit. The institution and the work which we represent is not the work of a day or a year, but of a generation. It is not the work of one man, but of a company of men and women working ardently for the same great end.

"I am not only interested in what has already been achieved, but I am particularly concerned in the future of our work that it shall be established upon such a basis as will enable it to go steadily forward to greater results after we are gone. Some of you will live to see those great results; some of us are drawing near the close of our work; some have come more recently into connection with this work; others have been for a long time identified with it. Here is Dr. Morse, who has spent more than half his life in this institution. Mr. Murphy has been here for nearly thirty years, and others have given comparatively all their lives to the upbuilding of this work. The future of this work is in our hands. It is for us to mold its present and to shape its future. A few years ago the principles for which we stand were unpopular; now we have come to

the harvest time, and what a wonderful harvest it is! Our tree is bearing fruit; the people are ready to receive what we have for them, and every day we see people changing their habits and conforming to these righteous principles.

"Among the things that we have been able by Divine Providence to achieve, is the establishment of the Medical Missionary College. It is more than a hundred years since the first attempt to establish such a college was made by a man who died in Jamaica, leaving a sum of money for the establishment of a Medical Missionary School in London. But this school never materialized. Others have made the attempt. Our Doctor Dowkontt labored earnestly for many years with the same purpose, but the obstacles were too great. The erection of buildings, the collecting of a faculty and the establishment of a school, is not all that is involved, by any means. A successful medical school must have recognition by medical authorities. It must be recognized by other reputable schools, by state authorities and by the medical profession generally; and it means something to obtain such recognition. By the Divine blessing we have been able to attain this object. There is not a state examining board in this country that does not recognize this college, nor is this recognition confined to this country. The best schools of the Old World are also according recognition to our work.

"So it is this fact that has called us together to-night. We have here two of our colleagues who have recently returned to us from abroad. Dr. R. H. Harris has passed the searching tests of the Edinburgh schools and has borne away their highest honors, having been elected a Fellow of the Royal College of Surgeons of Edinburgh. This was surely not a simple or an easy

achievement. Doctor Harris has been submitted to the scrutiny of the most exacting of examining boards, coming out of the ordeal with excellent standing. I trust that we shall not be deemed selfish if we claim a little share in the honor of this event. It is certainly a remarkable success in our career, and I am sure you will join me in congratulating Doctor Harris. We will ask him to tell us how he did it and how he feels about it."

After a short interval, during which a delicious repast of fruit was served, Doctor Harris responded and said in substance:

"We are very glad indeed to be home again among our friends, and we hope to renew the same friendly relations with all of you that we enjoyed when we went away.

"Dr. Kellogg has asked me to tell you how I feel about my success, and what I have been doing while I have been in Edinburgh. As for how I feel, I would say that I feel very grateful to God for helping me through this ordeal, and for helping me to finish the work so soon. I did not expect, when I went to Edinburgh, that I would take the examination until January, but being urged by Doctor Kellogg and Doctor Eggleston to make the attempt in October, I finally resolved to do so, knowing that if I failed then I would have another chance later. I prayed for Divine guidance as to what studies I should take and what work I should do in preparation for the examinations, and I am conscious that God did direct my mind to the things I needed to know.

"In regard to what we have done, you will, perhaps, be interested in a little account of our journey. Leaving here last April, we visited relatives in the East and sailed from New York in company with the Doctors Roth and Heyemann, the former on their way to France and the latter on their way to

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Among other special advantages offered are laboratory instruction in bacteriology and chemistry, the use of the microscope, urinary analysis, practical course in cookery and dietetics, medical gymnastics, swimming, anthropometry and open air methods.

Applicants received whenever vacancies. The next class will be organized the first of April, 1910. For full information address

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Edinburgh. We landed at Southampton, and after a very brief visit in London, proceeded directly to Edinburgh. We arrived on May 7th and found our former landlady, by whom we were very kindly received and from whom we again obtained residence.

"The following day I met Doctor Williams, a graduate of the American Medical Missionary College, on the street, and learned that we might have the pleasure of studying together, as he was also preparing for examination. We began work immediately.

"The Doctors Heynemann, who reached Edinburgh a few days later, were well received, and commenced classes at once in preparation for the examinations of the Conjoint Board of the Royal College of Surgeons of Edinburgh, the Royal College of Physicians of Edinburgh and the Faculty of Physicians and Surgeons of Glasgow. The 'triple qualification,' as the diploma for which they are working is called, confers the right to practice in Great Britain and by reciprocity the right to practice in British Colonies. They expect to take the examination in January.

"In my preparation I worked unremittingly from May 7th to the time of the examination, September 30th and days following. I took courses in anatomy, pathology, operative surgery, and clinical surgery, during the summer session of the School of Medicine of the Royal Colleges. Then for a number of weeks I attended clinics, studied my books, did practical work in operative surgery, and spent a great deal of time in the Museum of the Royal College of Surgeons studying gross pathology. During the four weeks prior to the examination, I took the post-graduate course in surgery, given conjointly by the Royal College of Surgeons and the University of Edinburgh.

"My examination, which extended over four days, was written, clinical, oral and practical, and covered the subjects of surgery and surgical anatomy, operative surgery and surgical pathology. I was happy in being able to satisfy my examiners, and in passing my examination with quite a little margin to spare.

"There still remained the election to fellowship, which did not occur until the 11th of this month; but since my return to Battle Creek I have received by cable the announcement of my election.

"After remaining three weeks longer in Edinburgh, we visited London, and spent a very enjoyable week at the Caterham Sanitarium with Doctor and Mrs. Olsen. We then spent ten delightful days with the Doctors Roth in Paris, after which I took a flying trip to Berne, Vienna and Berlin. At each of these places I was fortunate in being able to see the hospitals and the medical work in which I was particularly interested.

"We sailed from Southampton on the steamer Adriatic and reached home a week ago. We are exceedingly glad to be home again and renew our old friendships, and to engage again with you in this good work in which we hope to be of some use."

Dr. Elizabeth Kerr-Harris, being called upon, made a few remarks relative to their experience and her own post-graduate medical work. She stated her satisfaction at the

outcome of their trip, their joy at being again among their co-laborers, and the new determination with which they returned to take up their work.

After this the company soon broke up, feeling that the evening had been very pleasantly and profitably spent.

ARRIVALS

THE list of arrivals at the Battle Creek Sanitarium for the week ending December 27 is as follows: J. M. Smith and D. J. Hopkins, Mich.; Elizabeth de Werff, Ill.; E. H. Lay and wife, Chicago; B. F. Bellows, Mich.; Mr. and Mrs. C. G. Freeman, New York City; Miss Mary C. Hurd, Ill.; Geo. B. Borgland, Ill.; Mrs. Sarah L. Draiss, Pittsburg; L. H. Binell, Ill.; L. A. Zinser, Chicago; Mr. and Mrs. C. A. Bowman, St. Louis; Mr. and Mrs. Chas. Horning, Mich.; Chas. Peterson, Tex.; Lelia Garvin, Cincinnati; Arnold H. Kambly, City; Robt. C. Ludlin, City; W. F. Childs, Boston; F. E. Sebring, O.; B. W. Freshley, O.; Mrs. E. Armond, Minn.; Jesse A. Buel, City; John T. Campbell, Ill.; Ernest L. Pearce, Mich.; Orrin S. Good, Spokane; F. O. Cunningham, Mass.; J. C. Murray, Mich.; R. F. Courter, Mich.; Thos. B. Reid, Wis.; Mrs. S. J. Wolf, Mich.; A. L. Bennett, Mo.; W. C. Jasper, Tex.; H. E. Hammond, Ga.; Chas. Petterson, Tex.; Mrs. M. M. Farwell, Detroit; Mrs. Fred Schumaker, O.; John C. Noe, China; H. T. Myers, Chicago; E. S. Beckwith, Chicago; A. E. Biglow, O.; Mrs. H. F. Hansen, Cincinnati; C. F. Dowkontt, Mass.; R. McGourigle, Minneapolis; J. W. Cain, Detroit; Ira Scott and Mrs.

Jas. M. Furner, Mich.; R. S. Armour, St. Johns; J. C. F. Whitney, Mo.; R. E. Johnson, Ill.; David E. Reed, Mich.; Bertha Anderson, Ill.; Amanda Timms, Chicago; R. F. Schuer, Cleveland; Wm. M. Hastings, Mass.; A. W. Grabe, Milwaukee; O. B. Potter, Buffalo.

News and Personals

Mr. Clifford Dowkontt, from Auburndale, Mass., is visiting his mother and sister at the Sanitarium.

J. C. Murray, of Ann Arbor, is spending the week at the Sanitarium, visiting his cousin, Dr. Fraser.

Dr. V. L. Fisher, of Mt. Vernon, Ohio, is spending a few days at the Sanitarium, visiting old friends. Dr. Fisher is a graduate of the A. M. M. C. class of '06.

We are pleased to have with us again our old friends Mr. and Mrs. James T. Nichols, of Pittsburg, who spend most of their time at the Sanitarium. They find it a pleasant place in which to spend their time, and we enjoy their genial presence.

Pastor Alonzo T. Jones, having returned from an extended tour in the West, has resumed the pastoral work of the Sanitarium. He will preach next Sabbath morning a New Years discourse from the text: "If any man be in Christ Jesus, he is a new creature." Dr. F. W. Martin will take up his work as superintendent of the Sabbath School at the same time.

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- VIA -

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One and one-half fare for the round trip on all trains December 24, 25, 31 and January 1st. Return limit January 3rd, 1910. Please ask for full particulars.

L. J. BUSH, Passenger Agent.

Prof. J. B. Nykerk, of Holland, Mich., is again stopping at the Sanitarium.

R. T. Courter, of Farmington, Mich., an old friend of the institution, is spending a few days with us.

J. M. Smith, of Marcellus, Mich., a lumber dealer, is taking much-needed rest and treatment in the institution.

Prof. E. H. Lay and wife, of Chicago, are stopping at the Sanitarium. Mr. Lay is connected with the Lewis Institute.

Dr. Anna Durrie, of the Sanitarium staff, has gone to Allegan, Mich., to spend a few of the holidays.

Ira Scott, of Lansing, Mich., accompanied by his daughter, Mrs. Jas. M. Turner, arrived at the Sanitarium last week to spend a few days for rest and treatment.

C. A. Bowman, of St. Louis, Mo., secretary of the South Arkansas Lumber Company, accompanied by his wife, has entered the institution for rest and treatment.

Dr. S. B. Barnhart has returned from a trip to St. Louis, Mo. Dr. Barnhart also spent a few days visiting relatives and friends in Nevada, Iowa, on his way home.

We are made glad by the return of the sophomore and junior classes of the Medical College from Chicago, who having finished their work there, will remain with us for the rest of the winter.

The Sanitarium W. C. T. U. will hold their next meeting at the home of Mrs. Baldwin, 313 Champion Street, Tuesday, January 4, at 7:45 P. M. All friends and members of the Union are cordially invited to be present.

The great Students' Missionary Volunteer Convention meets in Rochester, N. Y., this week. It is expected that there will be at least 5,000 students in attendance. The American Medical Missionary College will be represented by Dr. J. F. Morse from the faculty, and by Mr. Weneke, Misses Ketcham, Gerow, and Parmele of the students.

The Health and Efficiency League, which was recently organized at Chautauqua, New York, headed by a number of very prominent men throughout the country, is steadily growing. Considerable interest is being taken in this movement by Sanitarium patients and employes and many are entering into the membership of this worthy enterprise and lending their influence to promote its objects.

An evangelist campaign under the charge of Dr. John C. Stough, assisted by three other gentlemen, is to be opened in Battle Creek on the evening of January 3. The meetings are to be held in the First Methodist Church. The advance agent, Mr. F. C. Cunningham, is already on the ground. The evangelists will be entertained at the Sanitarium. The prospects are good for a successful gospel work.

During the present week the Sanitarium is entertaining Messrs. David Read and Johnson, evangelist preacher and singer, who are conducting services at the City Rescue Mission. These services are well attended and the prospects of much good being accomplished are very encouraging.

On Sunday, January 2, at three o'clock and 7:30 P. M., the annual meeting of the City Rescue Mission will be held in the old Bijou Theater. The services will be under the charge of Mr. Melville Trotter, of Grand Rapids, who is attaining a national reputation in this branch of Gospel work. Mr. Trotter will be accompanied by Peter Quatrell, an evangelist singer; by Mr. U. V. Silwell, of the Milwaukee Rescue Mission, and Messrs. Van Domelin and Eldridge, of Kalamazoo and Saginaw respectively. A great and good time is anticipated and a general invitation is extended to all to be present.

"War on the White Slave Traffic" is the title of a new volume edited by Ernst A. Bell, superintendent of the Midnight Mission of Chicago. Mr. Bell's work brings him into close range with this infamous business, and he knows whereof he speaks. Not only does the author speak of that which he knows, but the entire volume is made up of information concerning the trade in girls and women, secured from those who have acted a wide part in its suppression. It is a book of intense interest. The volume contains 485 pages bound in cloth. The publishers are Chas. C. Thompson & Co., Chicago, of whom it may be obtained.

Battle Creek Sanitarium School of Physical Education

A GREAT OPPORTUNITY FOR YOUNG MEN AND WOMEN. Expenses may be largely paid in work. Gymnastics—German and Swedish; Dietetics; Massage; Hydrotherapy; What to do in Accidents, Emergencies and Common Maladies; Medical Gymnastics. Anatomy and Physiology; Chemical and Anatomical Laboratory work; Large Indoor and Outdoor Gymnasium and Swimming Pools.



Large Faculty of able teachers and trainers. Course one year. Tuition full year, \$85.00; Board and Room, \$3.00 to \$3.50. A number of students may pay their way in work.

Mr. Horace Fletcher will give a course of lectures on vital economics, and Mr. John F. Stapleton, formerly of the Yale Gymnasium, a special course on theory and practice of Swedish gymnastics.

The next regular term (new class beginning) opens January 3, 1910.

Any who are interested will be sent illustrated announcement with further details on request. Address:

The Battle Creek Sanitarium School of Physical Education
BATTLE CREEK, MICHIGAN

THE BATTLE CREEK IDEA

Vol. III No. 5

BATTLE CREEK, MICH., JANUARY 7, 1910

Price 2 Cents

RATIONAL TREATMENT OF VARIOUS DISEASES

Natural Methods, Says Dr. Riley in a Lecture, are to be Used in Counter-acting Unnatural Habits

THE REST CURE

SINCE the vital force is the power by which we live and by which health must be

Examination of Patients

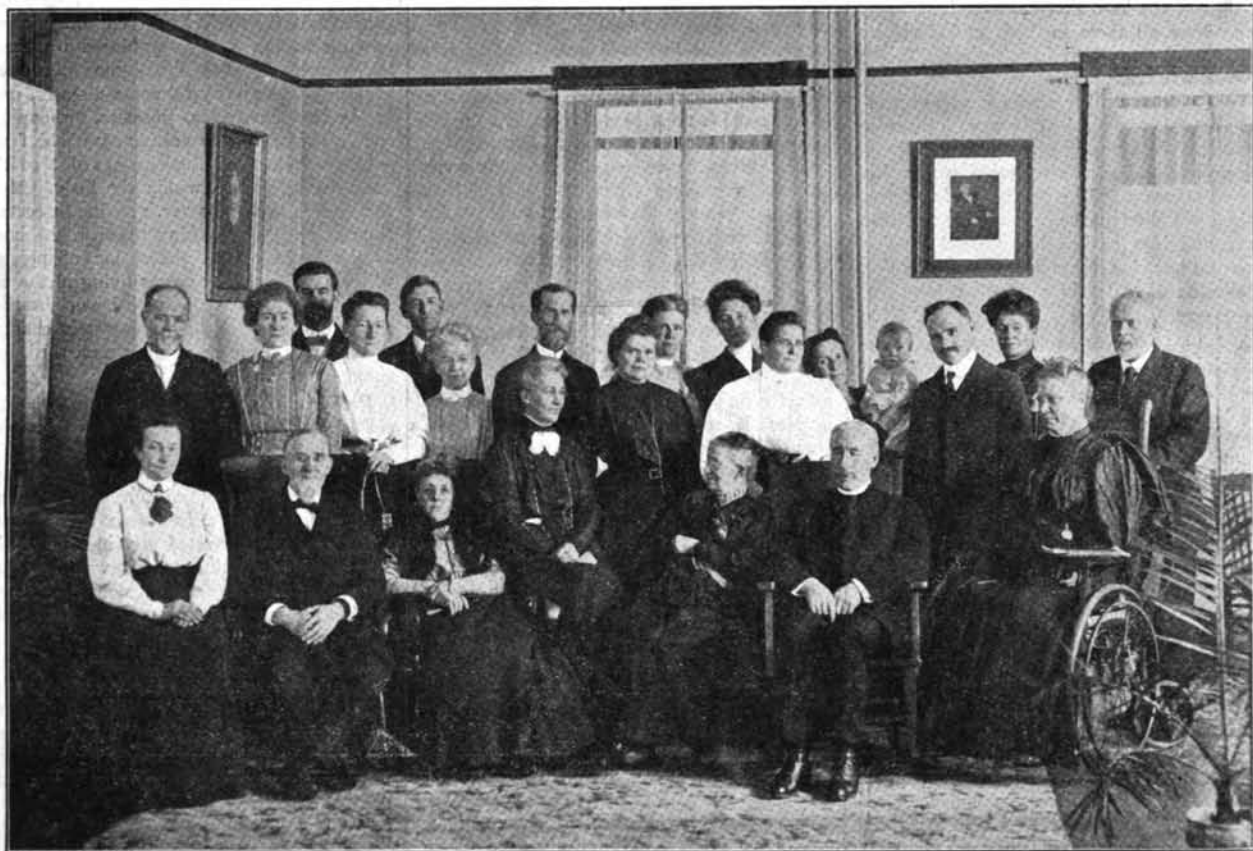
How Patients are Received at the Sanitarium, and How the Necessary Treatment is Ascertained

THE application of the physiologic method requires for its foundation much more than an answer to the question, What disease has

THE BATTLE CREEK SANITARIUM SYSTEM

For the Treatment of Disease by Natural Methods — A Lecture by Dr. J. H. Kellogg

THE Battle Creek Sanitarium system is not a discovery made at Battle Creek; it does not depend upon an all-healing spring;



A GROUP OF MISSIONARY GUESTS AT THE SANITARIUM IN DECEMBER

restored, it is but logical to conclude that the only curative methods available to us are those which restore the vital forces to normal conditions.

Among these means the most prominent one to be utilized is that of rest and sleep. People who come here in an exhausted and

(Continued on page four)

this patient? Is it rheumatism, dyspepsia, locomotor ataxia, neurasthenia? etc. It demands a minute inquiry into the exact vital status of the individual; a determination of the degree of activity and efficiency of each of the bodily functions. It requires a complete inventory of the patient's vital assets.

(Continued on page six)

it does not depend upon any specific climate; it does not depend upon any secret method, or panacea, or anything that is in itself unique. The Battle Creek Sanitarium system is simply a combination of physiologic or natural methods which have been developed in the science and approved in the practice of medicine during two thousand years.

Original from
UNIVERSITY OF MICHIGAN

It might be said that there are two systems of medical treatment—the artificial method and the natural method. The rational method includes all methods, artificial and natural, that have been proved by experience to be valuable. As far as I know, the Battle Creek Sanitarium was the first institution in the world where all known medical appliances of every sort were brought to bear in the treatment of the sick. When I took charge of this institution, thirty-three years ago, it was a water-cure. Water was used and the vegetarian diet was adopted, but outside of that there was very little method of any sort. The water-cure methods were not rational or scientific—they were purely empirical. I at once set to work to organize a system in which the means and methods known to medical science were combined, in which we should use not only water, but also electricity, massage, exercise, diet, light and heat, and every other known means, giving natural means the preference, and employing artificial methods only when necessary.

The result is what you see here at the present time; and so far as I know, it is not only the first attempt, but is the most complete attempt of the kind that has ever been made to combine all these methods and facilities and bring them to bear in one place. Thirty years ago a few specialists in New York, Philadelphia and other places employed medical electricity in a scientific way; otherwise it was used in a purely empirical way. There was no such thing as a scientific application of hydrotherapy. If a patient had a fever, he had wet sheet packs or something of that sort; and if a patient had pain, he had a fomentation; but there was no application of the use of water in a scientific way.

We have attempted to base all our work upon physiology,—first of all to know the physiologic law which applies to the case in hand, discover how that physiologic process has been disturbed; then see what can be done to help Nature to restore the normal equilibrium. First of all we must have a foundation principle.

Deitl, one of the most famous men of his time, said this: "Nature cures: That is the first and greatest law of therapeutics, one which we should never forget. Nature creates and maintains, therefore she must be able to heal." Now, this is a great truth expressed very tersely, and Professor Virchow, probably the greatest physician who has lived in the latter half of the last century, said: "Diseases are not entities that have entered into the body from the parasites that take root in the body; they merely show us the course of the vital processes under altered conditions." That is, when a man is sick he is not different from the man who is well, only his conditions are bad. The human body performs its work painlessly, without the slightest sensation in relation to the control of the parts. The liver, for instance, goes on and does its half-a-dozen different kinds of work, and all its functions are performed without our consciousness. Nobody would know he had a liver if he were not ill sometimes. No one would know he had a stomach, if he did not get hungry and over-

eat, which is very likely to remind one of the location of his stomach. No one would know anything about the liver, the spleen, or even the heart, so far as sensations are concerned, if it did not become diseased. When organs become diseased, then they complain, then they sound a warning note, beseeching us to be careful, to cease to do evil and to learn to do well.

So the diseased condition is simply the body struggling under abnormal circumstances and doing its very best to perform its work faithfully and well under these adverse and burdensome conditions.

The man who has done more, perhaps, than any other man to put these natural methods upon a scientific basis, particularly as they relate to the use of water, is Professor Winternitz. When a young physician, nearly fifty years ago, he became interested in hydrotherapy, and sought out the little water-cure at Graefenburg in Austrian Silesia, a few miles from the Russian border, where that wonderful peasant, Priessnitz, fifty years before had discovered and brought together facts in relation to the use of water, and methods which made it possible for him to organize a system of hydrotherapy; for Priessnitz was the very first man who ever employed water systematically. Other men before his time had used water, but he was the first man who ever reduced it to a system, and this system developed gradually. It was not the creation of a day, but during his whole life he worked, and although he was an illiterate man, could not read or write until he was forty years of age, and then could barely write his own name and read a little; though he left no books, and not a single article did he leave behind, this work was all thought out and a practical application made of it by this man Priessnitz, who left to the world a wonderful legacy of practical knowledge. Winternitz went to Graefenburg and under the successor of Priessnitz, Dr. Schott, studied this system as Priessnitz left it, and began to apply scientific experiments and tests to these methods. Priessnitz found what they were valuable for; he found the cold wet-sheet pack was a means of reducing fever. Doctor Winternitz discovered how it reduces fever, how it accomplishes the reduction of temperature, and he demonstrated that it does that. He studied the heating compress to know how it accomplishes its wonderful results; and he has done more, as I said before, than any other man to put the use of water on a thoroughly scientific basis; so now we know not only that the wet-sheet pack is good for fever, but we know why it is good for fever; we know all the different ways in which it influences favorably the patient who is sick with fever. This man who has met a great amount of opposition, has compelled the attention of the world to the important facts which he has demonstrated in relation to the use of water, and these facts have proven of great value. I first met him twenty-five years ago and have since met him a number of times when visiting Vienna.

Another man whose work has done much to place this natural system upon a scientific basis is Professor Koch, of Berlin. Professor Koch is the man who discovered that

germs are the cause of disease. Pasteur, of Paris, had previously discovered that germs are the cause of putrefaction; that germs are the cause of disease in plants; that germs cause disease in grape vines and various other plants; but Professor Koch was the one who discovered that germs are productive of disease in human beings in a wholesale way. He discovered the tubercle bacillus and proved that this germ is the cause of tuberculosis. Twenty-four years ago I went to Europe on purpose to study this germ. It was very little understood in this country at that time; there was very little faith in the germ theory, but I perceived that if this theory were true, it had a very important relation to our methods and our system. I found that the greatest physiologists in Europe were much opposed to this theory; they did not believe tuberculosis was caused by germs, and it was ten or twelve years before the theory received general acceptance. Professor Koch has labored persistently and very perseveringly to demonstrate the relation of germs to various kinds of maladies, until at the present time it is clearly shown that the majority of acute diseases are due to the direct and active operation of germs in the body, and I believe it can be easily shown that the majority of chronic diseases are due to the poisons produced by germs which are absorbed from the alimentary canal. The majority of acute diseases, such as la grippe, colds, measles, whooping-cough, chicken-pox, smallpox, typhoid fever—all these acute infections are due to the operation of germs within the body. Most chronic diseases, however, are due to certain changes which are taking place in the body as the result of the absorption of poisons which are formed by germs living in the alimentary canal, poisons which being absorbed produce changes in the blood-vessels, changes in the brain, changes in the spinal cord, and changes in the nerves.

Professor Koch is a grand man, who has risked his life many times in his researches as to the nature of diseases. He went to Africa, into the most deadly sections, where people were dying off rapidly, where the average life of the Europeans is only two years, and demonstrated certain facts which were previously unknown. He went to Egypt to study cholera, and demonstrated that cholera is due to certain particular germs that are always found when the disease is present, and against great opposition he constantly made progress until the time has come when his work is thoroughly acknowledged and he is recognized, I think, along with Pasteur, as one of the greatest benefactors of his race, through these wonderful discoveries.

Having learned that germs are the cause of so many maladies, it only remains for us to find out how successfully to combat these germs; and the most interesting thing we have learned is that germs are not able to make much headway in a thoroughly healthy body,—that the man who has such a body is almost proof against germs. But it is bad habits that bring us down and make us a prey to these parasitic organisms which are prey to these parasitic organisms which are scavengers. Their function is to destroy

bad things and to consume them. They are the means by which the fiat of the Almighty, "Dust thou art and unto dust shalt thou return," is executed. If it were not for germs, man would simply dry up and stay there; but the germs seize upon his body, tear it to pieces, reduce it to dust, instead of leaving it a mummy. If a man's habits violate the laws of health, his body is depreciated, reduced to such a degree by these errors of conduct that these germs are able to seize upon him and destroy him,—to seize upon him while he is still alive.

Professor Winternitz was the first one, I think, to coin a medical proverb or saying which has to me been one of the most illuminating of any of the phrases I have learned in my medical study: "It is the blood that heals." So long as the blood and the blood-vessels are sound, it is almost impossible that there should be disease in any part. When disease sets in, it is the blood and the blood-vessels that are diseased, the blood first, then the blood-vessels. But so long as the blood is normal, pure and vigorous, and there is plenty of it, its cells are able to defend the body against every kind of germs.

It has been found that by the use of water and sunshine, the are light, the electric light bath, massage, exercise, and especially by proper diet, it is possible to improve the blood, to purify the blood more effectively than in any other way. By the application of hydrotherapy, we may increase the white cells to a wonderful extent. They have been increased as much as twenty-five per cent in half an hour's time.

Another interesting thing about hydrotherapy is its influence upon the nervous system. When one faints away, we sprinkle cold water on the face and it revives the patient. Cold water put upon the body in general will have a similar effect. A few drops of cold water upon the face of a person who has fainted will almost always revive him, because the brain is connected with the skin of the face. When we apply cold to the face, it wakes up the brain, sets the heart going, and cures the fainting. The front of the head and the scalp is the face of the brain. The lungs have a face also. The skin covering the chest is the lung face, and the skin over the heart is the heart face; and if the heart is going too slowly and we apply cold water over the heart, it wakes up.

There is the stomach face, the kidney face, the spleen face, the bowel face, and the bladder face, and the face of the pelvic organs, and there are two important faces in the palms of the hands which are connected with the brain and the lungs and with other important organs. The soles of the feet also are connected with the brain and with the lungs. So all the organs of the body have faces or skin surfaces that are related to the different internal organs; and it is possible to influence every internal organ by making applications upon the proper surface of the body. If an organ has too much blood in it, we put cold on and that cold contracts the blood-vessels and relieves the congestion. If we treat hemorrhage of the lungs, we put cold on the chest, not to cool the lungs, because it does not cool the lungs

necessarily, but to contract the vessels of the skin and at the same time influence the blood-vessels of the lungs themselves to contract, because they are associated together in this way. So all these internal organs can be affected in a similar way. If we apply heat to the skin, it brings a large share of blood into the skin, and there is less blood to go into the tissues below, so these blood-vessels now are smaller, and in that way the pain is relieved. On the other hand, we may drive blood into the muscle by applying cold to the skin, so producing the opposite effect. Suppose we have a congested stomach. We apply a hot bag in front, and that draws the blood up to the skin, and we apply a heating compress behind, and that draws the blood into the skin,—the arterial blood in that part,—and in that way the congestion of the stomach is relieved.

One of the most remarkable things one can see is the great relief afforded by the simple application of a wet cloth. Suppose a child has the croup, or the whooping-cough, and can not sleep. Put a pack on the chest, and it is simply wonderful what

THE CITY RESCUE MISSION

THE annual meeting of the City Rescue Mission was held in the Old Bijou Theater in this city on January 2. The principal speaker was Mr. Melville Trotter, of Grand Rapids, recognized as one of the foremost mission workers of this country. He was himself converted from an awful condition of degradation and is now instrumental in leading hundreds and indirectly thousands out of the depths into better lives. He was assisted by Mr. Silliway, of Milwaukee, and other prominent men in the line. The report of the first year's work of the Mission, as presented by the superintendent, Mr. A. J. Steele, was of an encouraging nature. There had been received into the treasury of the Mission during the year a little over \$2,400, all of which had been judiciously used except \$81, which was then on hand. Over three hundred persons have professed conversion during the eleven months covered by the Mission's work. The effort to raise money for carrying on the work the coming year netted a little over \$2,000. This was



CUTTING ICE ON GOGUAC LAKE

relief it gives. A congested kidney is relieved by the same plan.

It is not possible in a single lecture to follow out the many details of the physiological system of the treatment of diseases, but what I have said will give you an insight into the philosophy of this system. The restoration of those who are sick depends upon the restoration of the vital functions to their normal state. And when right conditions are supplied, there is a power inherent in the body to set these functions into normal activity. That which we undertake to do is to furnish the proper conditions by supplying those natural resources that go to build up the system and to strengthen it in times of need. In this institution we have succeeded in bringing together those agencies by which the natural resources of light, heat, cold, exercise, nutrition, rest, etc., are furnished to the invalid in the required quantities. And then when we have furnished these, we expect the great Author of Nature through his own appointed means to do the rest.

"Perfect health depends largely upon perpetual harmony."

somewhat disappointing to the promoters of the Mission, as more than that will be required successfully to carry forward the work, and it is desired by them to have the necessary funds all in sight before the work is undertaken. It is to be hoped that our citizens will rally to the support of this good work and not permit it to suffer for want of funds.

The meetings were of a very impressive nature. Mr. Trotter is an effective speaker. The singing of Mr. Peter Quatrell was also a very notable feature of the occasion. His sweet tenor voice used in touching Gospel melodies made a deep impression. An overflow meeting was held in the evening at the Baptist church and was addressed by Mr. Silliway. Mr. Johnson led the singing in a very effective and pleasing way.

Mr. and Mrs. Steele have worked very hard and unselfishly since coming to our city. They have done a good work, which should be appreciated. The plans for the coming year include some new features calculated to make the work still more fruitful for good. Services are held each evening at 12 South Jefferson.

THE BATTLE CREEK IDEA

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THE LITTLE FOXES THAT SPOIL THE VINES

THE greatest results we witness in the world around us are accomplished by forces which seem to be the most gentle and unobtrusive of all. It is not the mighty demonstrations of power, the great outbursts of natural forces, that accomplish the work that characterizes the onward march of the world's events. The forces of development and growth, and those of disintegration and destruction as well, do their work quietly and almost unperceived, while men sleep, as it were. The snowflakes fall about us so silently and softly as scarcely to be felt upon the tender cheek of a babe. They continue to come in gentle showers, perhaps are piled high by some rude wind, but there they lie until the warm and almost imperceptible rays of the sun begin to melt them down. Then comes the gentle shower, and the snowflakes and raindrops become a raging torrent, sweeping like a besom of destruction all before them. Heat and cold and vital force seem almost passive in their gentle activities, and yet they are the most potent of all natural forces.

The growth of plants and animals is by slow and imperceptible process, and yet it is irresistible in its progress. The little plant pushes its way into the sunshine in spite of the heavy clouds that oppose it. It removes obstacles by its gentle pressure which would crush out its life if attacked rudely. The rootlets of a tree run under the rock and gradually that rock is lifted out of its bed or burst into fragments.

So also with those processes that undermine health and oppose growth and development; they, too, work in an insidious way, and perhaps it is only when one is on the very brink of ruin that he discovers the pernicious forces that have been for years at work upon him accomplishing his downfall. He perhaps falls suddenly like a great tree in the forest that comes down with a crash. But chip at a time the axeman has been working away, and his work seems to count for nothing until at last the fatal moment

comes and the final blow accomplishes the work of ruin.

We are wont to laugh at the voices of admonition and warning that are spoken in regard to our daily habits. We treat these things as of very little consequence, when in reality they are the very things that are determining our destiny; they are measuring out for us the span of life; they are either strengthening us for days and years to come, or are shortening our days and cutting off our usefulness. The little cigarette, or perhaps the larger cigar, the coffee which we love so well, and that we drink so black and strong; the tea that we foolishly say "cheers but not inebriates"; the late suppers, and the late hours of pleasure that should be devoted to rest, the rich foods and sweets, the flesh-pots and savory soups made of abominable things, all seem very innocent, and we laugh as we turn away from that which our good sense tells us is right and best, and say, "These do me no harm." By and by the tree we have planted and reared bears fruit, and then we realize what we have been sowing.

All these influences affect our lives, and though they seem to be inconsiderable and unworthy of notice, still they are the forces that are at work for good or evil and are sure to produce the greatest results. We need not live in fear of being swept away by a tornado or swallowed up by an earthquake, or blown to pieces by a boiler explosion. Comparatively few die in that way. But thousands and millions go down to premature graves who are swept away by those little forces so silently at work undermining health and strength, until at last, all unawares it comes in a single stroke, in a sudden breakdown, or in more gradual breaking up of vital strength. Beware of the "little foxes that spoil the vines."

RATIONAL TREATMENT

(Continued from page one)

weakened state almost universally complain of loss of sleep.

A healthy individual ought to have eight hours of sleep out of twenty-four. The infant requires many more hours; while for a person well advanced in years, six hours ought to be sufficient. Sleep, of course, to be at the best, should be sound and natural and free from any disturbance. There are a great many people who have chronic disorders in which the function of sleep is disturbed to a greater or less degree. This is particularly true in cases of neurasthenia or nervous prostration, where the nervous system is irritable and weak, and one of the most troublesome symptoms that the physician has to deal with is insomnia in cases of neurasthenia or nervous exhaustion. They tell the physician that they have had no sleep

at all. Maybe they have had two or three hours, though they frequently sleep more than they think they have. And the consequence is they feel exhausted, they do not feel refreshed in the morning. We ought to cultivate the habit of sleep, and to be regular in our habits of getting to bed, and to acquire the habit of healthful sleeping. This is a very valuable thing indeed.

The functions of the body can be easily disturbed, but I do not know of any function of the body that is more easily disturbed than that of sleep. One's habits of retiring should be regular; he should avoid everything that tends to disturb the sleep in any way, and should endeavor to get the most out of it. During sleep the body builds itself up. A child sleeps many hours, and he grows while he sleeps. There are many chemical processes going on in the body all the time. There is a synthetical or building-up process, and an analytical or a breaking-down process, and these are going on side by side in the body, sometimes one and sometimes the other is in excess. Work, exercise, and all activities accelerate the breaking-down process, while rest and sleep facilitate the up-building process. We grow and increase in body weight while we are sleeping. We lose weight during the active hours of the day.

Very interesting studies have been made of the changes occurring in the nervous system during sleep. We find that the nerve cell during sleep enlarges and the number of granules in the cell increases. A neurasthenic who does not sleep well is in a weak and irritable condition all the time. Sleep gives strength, builds up the blood and tissue, and is the best form of rest and should be conserved and cultivated. It is a very important proposition to those who come to an institution of this kind to cultivate the habit of sleep.

Sometimes a man thinks because he does not sleep he is going to lose his mind or something terrible is going to happen to him. But usually nothing serious happens. Of course it is desirable to have sleep, but if a man does not sleep more than three or four hours a day, there is no danger of anything serious happening or of incurring any serious disease. The rest of the time he is resting; he is not doing any manual labor; he is not active; he does not require so much sleep. The apprehension and fear that these people entertain is needless; no serious trouble comes from that amount of loss of sleep, so long as the individual lays down his work and cares and rests; that is the point I want to emphasize here. One can rest, even if he does not sleep. This principle of rest can be applied in the treatment of disease, and is being so applied. I think it is the best means of treating nervous disorders such as nervous exhaustion, hysteria,

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and certain forms of insanity. This remedy was put to practical use in these diseases first, I think, in this country by Dr. Weir Mitchell, of Philadelphia. He had his patients who had nervous exhaustion or hysteria go to bed and remain there a few weeks. The patient was not allowed to feed himself nor to do anything for himself in any way. His friends were kept away, he was isolated and was given complete physical and mental rest. Along with this treatment he was, as we say, over-fed; that is, he was fed more than he wanted, and, according to Dr. Mitchell's methods, the diet was a milk diet fed every three or four hours. He was also treated by means of massage and electricity. To keep the patient away from his friends and home is often very important in these nervous cases. Sometimes friends do more harm than good. To this line of treatment cases of neurasthenia, especially in young ladies, respond very well. In my experience men do not do so well when confined in a room by themselves under this line of treatment, but this method was popularized by Doctor Mitchell in this country. But this method is not found to be good in some cases, and instead of having a patient confined to her room all the day, we sometimes put her in a wheel-chair, take her out in the fresh air, so she has the advantage of rest, and also the advantage of outdoor life, of sunshine, and the stimulation that comes of being out among new surroundings. Where patients have neurasthenia from some chronic or constitutional trouble where nutrition is bad, I advise them to go to bed early, to get up late in the morning, or to lie down for two or three hours during the day. In this way we make use of the rest-cure in a modified form. This rest-cure is also very useful in all painful disorders, like sciatica, and in the early stages of locomotor ataxia, where there are sharp, shooting pains in the legs. There is no disease I know of where the pains are more severe than they are in a case of locomotor ataxia. In a case like that we often put our patients to bed, and of course we make use of other remedies. And in cases of acute rheumatism or, in fact, any painful disorder, it is a good general plan, in order to alleviate suffering, to put the patient to bed. The reason for this is that by so doing we protect him against changes in the atmosphere, which bring on the attack; and he is thus both protected and given rest.

Another class of diseases where rest is very valuable is in chronic diseases of the heart. Inside the heart there are comparatively large cavities, and these cavities are supplied with valves. The blood comes in a certain direction, passes through the heart, and these valves close and keep the blood from going back; thus the blood is driven on and in one direction. Sometimes these valves become diseased and the blood leaks through them very much the same as a pump the valves of which do not work properly and allow the water to run back in the wrong direction. And so with one who has chronic disease of the heart—the blood does not circulate properly, and by and by there is dropsy. Dropsy is not a disease—it is simply a symptom. The causes of dropsy are usually

disease of the heart, disease of the kidneys, and sometimes disease of the liver; less frequently some general condition like anemia, or some local condition like disease of the blood-vessels. Now, take a man thirty-five years of age who has had inflammatory rheumatism when he was a young man of nineteen or twenty years of age. His heart valves have been leaking possibly all these years, and he comes to a time when his general health begins to fail, and his heart does not compensate; that is, his heart does not do the extra amount of work required to make up for the deficiency in the leaking of the valves, and so the blood does not circulate properly and he has dropsy. A very important thing to do with such a case is to put him to bed. And I have seen quite a number of cases of dropsy from diseases of the heart cured after every other remedy failed, by putting the man to bed. Dr. Osler, of whom you have probably heard, reports a number of cases of this kind.

I speak of these things to emphasize the value of some of those simple remedies that are usually passed by and thought of little or no value. Of course, we do a lot of things besides putting the man to bed, but this is an important thing to do. Of course, the heart will still leak after the man is cured of the dropsy, but the heart works with greater force to make up for the deficiency in the leak, and so the blood is properly circulated through the body. The reason we put the man to bed is to take the work off the heart. The heart has more work than it can do, and so we put the patient in a horizontal position and in that way lessen greatly the amount of work the heart has to do. When a man is running, the amount of work the heart has to do is very great; when he is walking, there is not so much work on the heart; when he is sitting, there is still less; when he is lying down, there is the least of

all, and the heart has a chance to readjust itself.

But another man has been sitting in the office for weeks and months and years and taking little exercise, and when he goes upstairs he gets short of breath, and when he runs for a street car he is out of breath and his heart palpitates. He does not need rest; he needs exercise; and that man may be put on a course of exercise to increase the strength of the heart. The trouble there is that the muscle of the heart is weak. Physicians in their examination of the heart always listen for what we call murmurs. But the thing that is apt to be overlooked is the condition of the muscle of the heart. In some cases of serious trouble of the heart, where the muscle of the heart becomes weak and inefficient, there is no murmur at all. When the muscle of the heart gets weak it is really a more serious condition than when the valves leak and do not do their work promptly.

So there are two classes of organic disease of the heart, one affecting the valves and the other affecting the muscle, and if the muscle gets weak or undergoes degeneration, that is a thing which should have proper attention. The muscle of the heart becomes weak and flabby from lack of exercise.

Another important class of diseases where this rest is essential is in fevers. When a man has a fever, we put him to bed, because the temperature is lower when he is quiet than when he is active, and he is better able to put up a good fight. In typhoid fever and in all the acute fevers rest is certainly very important. Then, there are certain forms of acute paralysis where it is important to the patient to have rest, and there are perhaps quite a long list of other diseases that I need not mention where rest is very useful. Those I have mentioned are sufficient to illustrate the value of rest.

Battle Creek Sanitarium Periodicals

Three journals are published at the Battle Creek Sanitarium:

The Battle Creek Idea (Weekly).....	\$1.00 per year
Good Health (Monthly).....	1.00 " "
The Medical Missionary (Monthly).....	.50 " "

These papers will be combined at the following prices:

Battle Creek Idea and Good Health.....	1.50 " "
Battle Creek Idea and Medical Missionary	1.20 " "
Good Health and Medical Missionary.....	1.00 " "
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EXAMINATION OF PATIENTS

(Continued from page one)

To accomplish this, the patient must be tested and calipered by every means known to science, and the results must be reduced to the most exact mode of expression, to coefficients when possible, for convenience of comprehension and comparison.

These examinations must be made, not once, but many times, being repeated at frequent intervals, so that the effects of treatment may be recognized, and any necessary modifications may be made.

RECEIVING THE PATIENT

The patient, on his arrival at the Sanitarium, after having selected his room, visits the medical office, where his name and address are taken by the receiving physician, and a few general facts respecting his case ascertained, sufficient to make clear the general character of his case; that is, whether it be surgical or medical, and if medical, whether the services of a specialist will be required, and if so, which department is indicated. The patient is then assigned to the particular one of the thirty physicians employed in the institution who is especially qualified by training and experience to best deal with his particular case, and there is placed in his hand a blank prescription booklet which bears his name and number, together with the name of the physician to whom he is assigned. In this booklet will be recorded the various prescriptions for hydrotherapy, phototherapy, electrotherapy, mechanical and manual movements, walking, swimming, and other exercises, hours for rest, suggestions concerning diet, including the quantities expressed in calories of proteins, carbohydrates and fats, and general suggestions. The book also contains blanks for the records of the daily meals, of strength and weight tests, and a blank program on which the physician will indicate the hours for the various treatments, exercises, and measures to which the patient is to be subjected during each day.

The physician designated takes the patient in hand, and listens to his own account of his ailments. Assistance is often rendered by the letter of introduction which the patient may bring from his home physician. In this examination the aim is not simply to discover symptoms but to learn the exact state of the fundamental vital processes,—what is the condition of the patient's metabolism? Does metabolic insufficiency exist? Is an abnormal degree of tissue destruction taking place? To what degree is the functional efficiency of each vital organ or set of organs diminished, especially as regards muscles, heart, lungs, stomach, blood, liver, kidneys? All known means are brought to bear to discover any possible organic changes in the brain or nerves, heart, liver, kidneys, arteries, or other vital parts. Special emphasis is laid upon certain points which are of particular interest in the application of hydropathy and other physiologic methods.

"When you become acquainted with yourself—your whole self, you will never be lonely any more."

QUESTION BOX DEPARTMENT

EACH Monday evening Dr. Kellogg conducts a Question Box talk in the Sanitarium parlor, where all guests and patients are at liberty to submit questions relating to health and health topics.

Q. How may one develop muscle flesh and not develop fat?

A. By exercise. Exercise is the thing that causes the muscles to grow. The muscle is filled with blood-vessels. When the muscle is acting, these blood-vessels dilate. There is a wonderful thing of which I must tell you. I am about to lift one hundred pounds with my hand. As soon as I prepare to make that lift, the blood-vessels of my arm dilate and the arm fills with blood to furnish them with the power and the energy necessary for the work. Ordinarily the muscle is pale, but when I simply form the resolution to lift, instantly the arm prepares for the work. Here is a very simple experiment that was made some years ago, first, I think, by Doctor Anderson, the professor of physical culture in Yale. Doctor Anderson balanced himself in a horizontal position very exactly and on a fine poise, and fixed his mind upon his heels, and down went his heels, and his head went up, because the fixing of his mind there caused the blood-vessels of his legs to fill with blood, and made that end of his body heavier. The moment he fixed his mind upon his head and neck, down went his head, because his head was filled with blood. That is only one of the simple illustrations of how absolutely necessary it is for our existence that every instant of our lives there should be exercised upon us and within us the watchful care that we ourselves are utterly incapable of exercising.

So when one is going to exercise, if he wants to develop his muscles, he must exercise his muscles. The thought which is thrown into the muscle causes the vessels in the muscles to dilate, and the work which is performed also stimulates the flow of blood into the parts which are at work; the muscle contracts, the blood is pumped in and out, and so as the blood comes into the muscle, the nutritive material is deposited there out of which muscle is built, and so the muscle grows.

Q. What kind of exercise is best for promoting muscular development?

A. It does not make so very much difference what kind of exercise. Walking is one of the best exercises, but you must walk twice as fast as you want to walk. If your ordinary gait is a kind of saunter, then when you go out to walk to reduce fat and cultivate muscle, you must walk rapidly, and put your chest up high; that is very important, and if you want to get real good out of it, develop a springing step to go with it. Get up on your toes at every step you take, and that lifts the body. In walking that way you do five times as much work as you when walking in the ordinary way. When one walks in that way, at the rate of three miles an hour, he has to walk about twenty feet in order to do as much work as would raise the body one foot. If you lift your body up on your toes, rise two inches at every step, then in walking twenty feet, which you will do in about eight steps, you will lift your body sixteen inches. And if when you come down you bend the knees a little, you do more than that.

Q. Is any harm or injury likely to result from running very hard?

A. Yes, if one runs very hard he is likely to injure the heart. When he gets out of breath, the lungs are congested and the heart is doing extra hard work. For a small boy that makes no difference; a little fellow can run as hard as he likes, and fall down exhausted, and it doesn't make any difference, or do any harm, because his blood-vessels have such tenacity, such toughness that they are able to resist fifty times the ordinary pressure that is brought to bear upon them. But in a man of sixty years of age and who is getting arteriosclerosis, it is quite another thing. The blood-vessels may not be able to resist,

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This institution offers a three years' course of instruction for women and two years for men. In addition to the usual subjects taught in hospital training schools, special attention is given to all branches of physiologic therapeutics, including hydrotherapy, radiotherapy, phototherapy, kinesotherapy, or manual Swedish movements, and massage.

Among other special advantages offered are laboratory instruction in bacteriology and chemistry, the use of the microscope, urinary analysis, practical course in cookery and dietetics, medical gymnastics, swimming, anthropometry and open air methods.

Applicants received whenever vacancies. The next class will be organized the first of April, 1910. For full information address

Sanitarium,

Battle Creek, Mich.

and there may be a rupture in his brain, and he will have apoplexy; his blood-vessels are not able to resist more than two or three times the ordinary pressure, and running to catch a train may result very disastrously.

Q. When there is free mucus in the stomach, what is the source from which it comes?

A. It comes from gastric catarrh.

TWO NOTABLE VEGETARIANS

It is a curious fact that in each of the countries I know best, the cleverest writer I met abstained from eating the flesh of bird, beast or fish, and you might as well have tried to persuade those men to walk on their hands instead of their feet, as to eat flesh-meat instead of cereals and other unslaughtered foods.

I refer to Leo Tolstoy and Bernard Shaw.

Tolstoy's case is the more peculiar, for he was fifty-seven years old before any one drew his attention to the advisability of avoiding flesh-meat. He suffered from digestive troubles, and his doctor and his wife objected to his changing his diet; but, on ethical grounds to begin with, he insisted on doing so; and now, after twenty-three years' experience, he holds that the change was good for him in all ways: morally, mentally and physically.

During those twenty-three years he has labored strenuously, and showed extraordinary recuperative power when tested by severe illness. In how far his diet helped him, I do not know, but at any rate the lack of flesh-meat has not prevented his becoming the most famous literary man of our time, and does not prevent him to-day, at the age of eighty, from doing more work than most men of twenty or thirty years his juniors.

After he had settled the question of diet to his own satisfaction, Tolstoy did not often refer to it in his writings; but there is one article of his entitled "The First Step," which treats the question from the ethical side, and is, on that line I think, as powerful a plea for food reform as has ever been penned.

Tolstoy's connection with food reform became widely known to the general public owing to the indiscretions of a German governess who (after the Countess had dismissed her from her employ) published some recollections in which she suggested that Tolstoy was in the habit of getting up secretly at night to eat roast beef. This was sufficient to enable certain enterprising journalists to dress up a very pretty story with numerous variations. It was the sort of foolish stuff that suits people who live on newspaper gossip; but it served a useful purpose by connecting Tolstoy's name with the question of diet; and inquiry soon showed those who cared to know, what sort of a woman this was, and whether Tolstoy was the man to prattle about at night eating roast beef on the sly.

Economy of human toil counts for much in Tolstoy's esteem, and his food is very simple—consisting largely of oatmeal gruel. I don't think he ever went carefully into the question of food values, or had any one to advise him scientifically on that subject;

but, judging by results, he stumbled on to a diet that sufficed for his needs.

The bulk of the Russian population eats little flesh, for they have some two hundred fast days in the year (Protestantism, by the way, is the only large religion which neglects the question of food and drink) and on those two hundred days an Orthodox peasant eats no animal products at all; while even at other times poverty checks his carnivorous inclinations. Well-to-do Russians, however, eat flesh-meat freely (as their appearance very frequently suggests), and this makes Tolstoy's tenacity to his new diet the more noticeable.

In many respects Bernard Shaw is a striking contrast to Tolstoy. The latter detests speaking in public, and has in fact only spoken in public three times in his life, and then badly. Shaw feels no such dislike, does it very frequently, and in set speech as well as in debate, does it admirably. Tolstoy's written style, though lit up at times by mordant irony, is grimly serious, and generally aims at making his meaning clear "to every cabman." Shaw, on the contrary, allows his constant flashes of humor to dazzle his readers, and is not averse to leaving them often perplexed as to what he means.

But if one looks deep enough, there are strong resemblances between these two men. Both are truly and intensely revolted at the needless wretchedness the mass of men endure. Tolstoy dwells most on the injustice of existing arrangements, Shaw on their inefficiency; both men feel their cruelty. They are alike in believing that we can and must alter these bad conditions, and that the effort to do so is the most important work a man can put his hand to. Both are strenuous workers, strict in their diet, and shunning stimulants. Both have defied the conventional opinions of their country and their time; but here the parallel ends, for Tolstoy has been excommunicated by the church, and ministers of state have pressed upon the Tsar the desirability of confining him in the ecclesiastical prison at Souzdal, into which men objectionable to the orthodox church sometimes pass, to be heard of no more.

By doing his work at constant risk to life and liberty, Tolstoy has gripped the attention of men in a way no merely literary performance can equal. He was the first Russian writer to speak freely and remain free.

—Aylmer Maude in *British Health Review*.

ARRIVALS

THE following people arrived at the Sanitarium during the week which ended January 2: Bertha Anderson, Ill.; Amanda Timm, Ill.; R. F. Schuer, Ohio; Wm. W. Hastings, Mass.; A. W. Grabe, Wis.; O. B. Potter, N. Y.; Mrs. Clara M. Richardson, Mich.; Miss Ada Cox, Mich.; D. Spint, Ohio; E. E. Covert, Mich.; W. E. Goff, Mich.; T. E. Nelson, Ohio; E. W. Stone, Mich.; C. Lawrence Herring, Ill.; Josephine M. Selfried, Colo.; Geo. B. Dyball, Neb.; Wm. E. Harsh, Ind.; C. C. McGuire, Mich.; W. W. Boxley, Va.; Richard H. Culp, Ohio; T. H. Martin, Tenn.; Mrs. S. L. Gibson, Ill.; Mrs. Henry E. Harman, Ga.; Mrs. John Gilmartin, Ohio; C. D. Lewellyn, Mich.; A. Adams, Ind.; Edith Miller, Mich.; H. J. Dermott, Mich.; A. G. Eellms; J. G. Hagin, N. Dak.; J. M. Smith, Mich.; D. F. Hummell; Ida Webber, Mich.; B. M. Carpenter, Ind.; Jerome Chapin, Mich.; C. H. Johnson, Ind.; W. I. Boreman and wife, W. Va.; E. Akerman, Ill.; Mr. and Mrs. Geo. A. Peters, Mo.; Mrs. Stratford, Can.; Mrs. Mary Rathbun, Mich.; F. T. Reid, S. Dak.; W. S. Hunter, Ill.; Mrs. Frank W. Ward, Mich.; Miss Helen E. Cooney, Ont.; Chas. D. Cooney, Ont.; J. M. Ward, Mich.; Mrs. N. I. Packard, Mich.; Mrs. J. G. Ludt, Colo.; Wm. F. Elles, N. Y.; A. B. Holbert, Ia.; James C. Morris, Mo.; O. R. Griggs, Minn.; Miss Carleson, Ill.; J. A. Gohl, Colo.; W. D. Scott, Mich.; Mrs. W. W. McBride, Ind.; Mrs. E. F. Gorton, Ill.; Mrs. E. O. Farnsworth, Minn.; Arthur E. Addison, Ohio; L. Herzig, Ohio; C. Nusbaum, Ohio; Miss Sarah Nusbaum, Ohio; W. S. Buchanan and wife, Mo.; Mrs. R. A. Telford, Tenn.; Hubert Berghoff, Ind.; Rev. M. L. Sosnin, wife and baby, Ky.; H. H. Shrin; A. A. Lane, Ohio; Miss Alice Shultz, Pa.; C. R. Dye, Mich.; Miss Emma E. Barnes, Mich.; Mrs. M. L. Woelard, Ont.; F. S. Bigler, Ohio; Bessie B. Way, Ind.; Hattie Fuller, Ind.; Mrs. J. I. Hey, Tex.; W. G. Webber; John Van Dyke, Ill.; Mrs. E. Greenwald and son, La.; Ralph W. Wescott, Pa.; Mrs. T. H. Watson, Mich.; F. J. Davis, Ohio; A. F. Davis, Ohio; C. J. Harter, Mich.; M. B. Webber, Ill.; Dr. J. L. Burr, Mich.; Fred and Alvin Geisler, Mich.; H. E. Kirschner, M. D., Iowa; Mrs. L. Irwin

TWO COURSES IN DOMESTIC SCIENCE

The One-Year Course, intended especially for Matrons and Housekeepers or for those who desire it for its educational value, includes General Cookery, Invalid Cookery Institutional Cookery and Practice Cookery, Anatomy and Physiology, Household Chemistry, Home Nursing, Household Microscopy, Household Economics and Household Architecture, Sewing, Medical Dietetics, Theory, Table Service, Physical Culture, etc.

The Two-Year or professional course, intended especially for Dietitians, Lecturers, and Demonstrators, includes all the studies of the one-year course, and in addition Advanced Chemistry, Advanced Physiology, Sanitary Science, Bacteriology, and Hygiene, and Advanced English.

ONE SPECIAL FEATURE of this school is that students are given an opportunity to meet a large part of their expenses by work along lines which aid them in their studies.

**The Battle Creek Sanitarium School
of Health and Household Economics**

**BATTLE CREEK
MICHIGAN**

Chapman, Mass.; J. Y. Aitchison, wife and son, Ill.; F. S. Smith, Wis.; E. R. Jones, Ont.; C. W. Reulee, Mich.; Mr. and Mrs. H. G. Whitley and son, Ky.; J. M. Smith, Mich.; H. B. Phillips, Ont.; Joseph G. Walter, Pa.; Mrs. W. F. Pope and baby, Ill.; Dr. S. Leslie West, Philadelphia; Tillie Delaine, Ill.

News and Personals

Mrs. W. T. Shatford, of Toronto, is at the Sanitarium as a returned patient.

Rev. J. Roberts, superintendent of missions of the Baptist Church for Michigan, is a guest at the Sanitarium.

Rev. C. J. Frink, pastor of the Lutheran Evangelical Church of Grand Rapids, is now with us taking rest and treatment.

Dr. S. Leslie West, of Philadelphia, a noted surgeon, and a professor of orthopedic surgery, is a guest and patient at the Sanitarium. Dr. West was here for a few days last summer, and has now returned to take needed rest and recuperation.

The following workers compose the evangelistic party now working in this city, all of whom are guests of the Sanitarium: Rev. Henry W. Stough, Rev. F. O. Cunningham, D. L. Spooner, and A. L. Herring. The campaign opened on the evening of the 3d instant very auspiciously for a good work.

Mrs. E. Greenwold, of New Orleans, has reversed the usual order by coming north during the winter, and is at the Sanitarium taking treatment. It is a good time to come to the Sanitarium, for the climate is perfect and steady inside, and cold and bracing without.

The John Eberly Concert Company, of Cleveland, are advertised to give one of their popular concerts and entertainments in the gymnasium at the Sanitarium on the evening of Saturday, January 8. This entertainment will be well worth hearing, as the four artists are people of rare ability in music and reading.

Among other recent arrivals we note the names of the following: R. W. Wescott, son of Hon. J. W. Wescott, of Haddonsfield, N. J.; W. W. Boxley, railroad contractor, of Roanoke, Va.; Attorney Arthur E. Addison, of Columbus, Ohio; Dr. H. E. Kirschner, Oakdale, Iowa; Mr. and Mrs. C. W. Sutton, South Haven; Mr. and Mrs. A. D. Gaines, Minneapolis; B. W. Carpenter, Waveland, Ind.

Among recent guests at the Sanitarium we note Rev. J. Y. Aitchison and wife, of Galesburg, Ill. Dr. Aitchison has been a prominent pastor in that city for some years and has been promoted to the secretaryship of the Baptist Home Mission Society, with headquarters in Chicago. He will assume his duties there the first of February, until which time he will rest and take treatment at the Sanitarium.

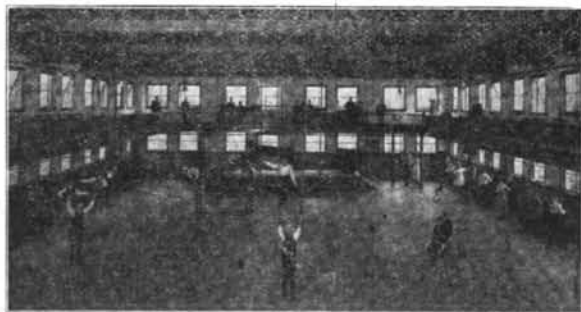
The Sophomore and Freshman classes of the Medical College have changed places. The latter have returned from Chicago, where they have been six weeks, and resumed work here, and the freshmen have gone to Chicago for six weeks. Dr. B. N. Colver accompanied the class to see them settled and at work in their new surroundings.

The work of filling the Sanitarium ice houses is once more going busily on. This is of itself no small undertaking, since not less than two thousand tons are required, and the ice must be cut on Gogauac Lake and hauled nearly three miles. A very large number of teams are employed. We present some views of this work in this issue. The steady cold weather which we have enjoyed the past few weeks has formed an unusually thick and clear coat of ice on our lakes.

The delegates to the Student Volunteer Convention held in Rochester, N. Y., have returned bearing glowing accounts of the meeting. The delegates were Dr. Morse, Misses Ketcham, Parmele, and Gerow; and Messrs. Weneke and Stokey. The convention was presided over by Mr. John L. Mott, the president of the movement. There were about 3,000 delegates in attendance and the audience numbered about twice that number. Prominent speakers took part in the program. They included several bishops and Ambassador Bryce, as well as a large number of returned missionaries. At the closing meeting ninety-two arose in the audience to show their expectation of entering upon foreign mission work within the next year.

Battle Creek Sanitarium School of Physical Education

A GREAT OPPORTUNITY FOR YOUNG MEN AND WOMEN. Expenses may be largely paid in work. Gymnastics—German and Swedish; Dietetics; Massage; Hydrotherapy; What to do in Accidents, Emergencies and Common Maladies; Medical Gymnastics. Anatomy and Physiology; Chemical and Anatomical Laboratory work; Large Indoor and Outdoor Gymnasium and Swimming Pools.



Large Faculty of able teachers and trainers. Course one year. Tuition full year, \$85.00; Board and Room, \$3.00 to \$3.50. A number of students may pay their way in work.

Mr. Horace Fletcher will give a course of lectures on vital economics, and Mr. John F. Stapleton, formerly of the Yale Gymnasium, a special course on theory and practice of Swedish gymnastics.

The next regular term (new class beginning) opens January 3, 1910.

Any who are interested will be sent illustrated announcement with further details on request. Address:

The Battle Creek Sanitarium School of Physical Education
BATTLE CREEK, - - - MICHIGAN

THE BATTLE CREEK IDEA

Vol. III No. 6

BATTLE CREEK, MICH., JANUARY 14, 1910

Price 2 Cents



How Much Does It Cost?

The Expense of Coming to the Sanitarium
—Charges Are Not Exorbitant.
Comparative Statements

THERE is no doubt that the cost of a period of rest and treatment at the Sanitarium prevents many people from coming who would

RATIONAL TREATMENT OF VARIOUS DISEASES

Natural Methods, Says Dr. Riley in a Lecture, Are to be Used in Counteracting Unnatural Habits

EXERCISE

EXERCISE is, of course, the opposite of rest, of which we spoke as a therapeutic

Sundry Topics in Sanitary Matters

Stated by Dr. J. H. Kellogg in Reply to a Question Submitted in the Sanitarium Parlor

THE USES OF CELLULOSE IN FOOD

I DO not say that all vegetable cellulose must be discarded as rubbish. It is only



A PATIENT'S ROOM IN THE SANITARIUM

otherwise be glad to avail themselves of its privileges. The Sanitarium would be very glad indeed to remove that obstacle entirely if that were possible. The institution is primarily established and conducted for the benefit of those who are sick. Those who are well have no need of Sanitariums; they only need to know and practice Sanitarium principles and thus to keep well.

But the world is full of sick and suffering people. Very few there are who can claim to be absolutely well. We have all lived long enough to know that illness is a calamity. It is a very costly calamity. Very few people can afford to be ill. The loss of time is a serious thing, the extra cost including doc-

(Continued on page three)

agent last week. There are different degrees of exercise as there are of rest. Rest lowers or reduces all the functions of the body. Exercise, judiciously taken, increases all the functions of the body. These are fundamental considerations in the treatment of disease.

Take, for instance, the circulatory system; exercise increases the rate and force of the heart-beat; exercise increases blood-pressure; and, first and last, exercise increases the circulation of the blood through the body. It is a simple thing, and not of much use, to tell a man to take some exercise for the purpose of increasing his circulation. But if you fix up a dose of medicine and tell him it

(Continued on page four)

those particular cases in which the stomach is in a state of chronic inflammation, in which there is an irritation present, in which it is important to avoid all unnecessary bulky material—it is only in such cases as that in which it is necessary to avoid indigestible material. It is ordinarily important that our food should contain a certain amount of indigestible material. It is not wholesome to live upon a dietary of wholly digestible material, which contains nothing but absolute nutriment, for there needs to be a certain amount of bulk. Our food must be more or less dilute and diffuse, so that the nutritive material may be well absorbed. When a person subsists upon a diet which is all digestible and all absorbable without any residue

to be left behind at all, the bowels become inactive in a short time for lack of proper stimulus to provoke peristalsis. So it is of the highest importance that there should be ordinarily a certain amount of bulk in food. This is just as true of men as it is of horses.

One hundred years ago or more there was a shipload of horses and mules sent out from Portland, Maine, to the West Indies. After a few days out a great storm arose, which swept away all the hay, which was up on the deck in bales. There was nothing left but corn, and very soon the horses began to die off. The captain thought he would help the horses out, so he set the ship's carpenter to work making nice fine shavings for the horses, and he offered them to the horses along with the corn, but they would not eat the shavings, though the mules ate the shavings with avidity. Every one of the horses died before they reached port, but the mules all survived. This is a matter of record, it is not a myth. You will find a full account of it in a book entitled "Graham's Science of Human Life," published fifty years ago or more. The horse has a very long alimentary canal, and a considerable amount of bulk is necessary to stimulate the movement of food along its alimentary canal and its proper distribution for digestion. The human alimentary canal is also comparatively long. The alimentary canal of the sheep, for example, is thirty times as long as the sheep's body. The sheep requires this long intestine because of the kind of food it eats, which contains a large amount of cellulose. Human beings have an alimentary canal about ten times the length of the body, while a carnivorous animal has an intestine only from one to six times the length of the body. There is a very great difference, you see. So while we do not require as much cellulose as the ruminating animals, we do require some, lest we get into the same situation as those horses did; we are likely to become diseased because of the excessive concentration of our food.

THE NUMBER OF MEALS A DAY

Whether you should take two meals a day, or three meals a day, or one meal a day, or four meals a day, depends upon the amount of food taken, and upon the quality of the food. If one's stomach is in such a state that it will bear but very little food at a time, a large amount of food calls out too much gastric juice, which irritates the stomach, a small amount of food, taken every two or three hours, will be tolerated a great deal better than to eat a full meal at once.

On the other hand, there may be those whose stomach requires such a long time to get the food out of it that two meals a day are in every way better than three or more; and it is possible for a person to be in such a state that one meal is better than more. Personally, I find it very difficult to eat two meals a day. In the morning my mind is full of various matters and I want to work hard and keep my head as clear as possible. I have found, and I presume many others have found, that one can do better work with an empty stomach, even a hungry stomach. When I have wanted to crowd myself with work, if I would get real chilly and hungry, then my brain would work with great activ-

ity. I have often sat in a cold room and allowed my feet to get cold because then I had more blood in my head and could keep the mill going longer, and could do more work.

I don't recommend that, because it is only in case of a house afire or something of that sort that one ought to abuse himself in that way.

It is not well to lay down a set rule and say we must eat four meals a day, or two meals a day, or three meals a day, or one meal a day. The number of meals must be adapted to the individual, and must be suited to the kind of food eaten. In general I think that for ordinary literary people, who have to work their heads, for sedentary people, and business men, two meals a day are better than more. Or at any rate, if one eats a hearty meal in the later part of the day, he should take nothing for breakfast more than fruit, or a cup of vegetable broth, with rice flakes or something of that kind. Bread and butter require a long time for digestion, and hot fried potatoes, griddle cakes, and things of that sort remain a long time in the stomach. Saratoga chips, for example, fried eggs, meats fried, require hours and hours in the stomach, and leave the stomach not prepared for other work. But a meal of boiled rice, with stewed fruit, will be disposed of in a couple of hours, and then the stomach will be clear and the person ready for mental work. It is better, if possible, to eat the heartiest meal after the hardest work of the day is done, provided, of course, one has not exhausted himself with hard work. To exhaust one's self with hard muscular or mental work, then to put into the stomach a very hearty meal, is about as bad a thing as a person could possibly do. Nothing should be eaten later than six o'clock in the evening, and the evening meal should be very light. For people who are giving their time to health seeking, as you are here, it certainly is far better to eat the heavy meal of the day not later than two or three o'clock. Two meals a day are, I think, in general much preferable to three meals, especially for people of sedentary habits. How much relief it would be to the housework if we could confine the meals to two,—a light, simple breakfast, then one substantial meal.

GOD'S LIMITATIONS—MAN'S FREEDOM

I do not believe in an arbitrary controlling power in this universe. I believe that God himself is the most limited being in the whole universe. I suppose that seems to be a strange statement to make. But I am convinced of its truthfulness. Man can do many things God can not do. Men can lie; God can not lie. Men can be unjust; God can not be unjust. Men can be envious, jealous, mean, and contemptible; God can not be anything of that sort. God is absolutely true, and absolutely right—limited by his own perfections to do only perfect things. I can do any number of imperfect things; I am doing them all the time. God must be perfect. God must be consistent; he can not be inconsistent. I can be inconsistent. The Divine character is fixed and absolutely unchangeable. Our character is in its formative state and we may develop it as we choose. We may choose our own relations

to things about us. (When we conform to natural laws which exist between ourselves and our environment, then we have health. When we go contrary to those principles, regulations and rules, we have ill-health. We are all familiar with the maxim, "Whatever a man soweth, that shall he also reap." This is a great principle and it is thoroughgoing. It is just as true in physical things as it is morally and mentally; it is absolutely true and certain that whatever a man sows, that he will also reap. If a man sows indigestion, he gets indigestion. If a man sows health, he gets health.

This harvest we are reaping is from somebody's sowing. God could not make it any other way and be consistent. If a man can smoke tobacco and smoke it day after day, and week after week, and year after year, without getting any damage, God would not be true; but God must be true. So when a man takes heart poison, inhales it day after day, it is absolutely certain that that man will experience the evil consequences. They must come; it is absolutely impossible that it should be otherwise. Every man who smokes is damaged more or less, and the more he smokes, the more he is damaged. I sometime ago met a smoker who said he believed he could be cured of tobacco heart by prayer, and he wanted the elders to pray for him. He had faith, but it did not heal him, for he continued to smoke. So it is with all our evil practices. If we desire to be healed, we must abandon them. As I have said, God does not do things in an arbitrary way, but when you want to do a good thing, a noble thing, you are right in line with what God is doing and with what he wants you to do. If your mind is in that line, you can be absolutely certain that Providence will help you, and you are just as sure to succeed as that the sun shines; you can not fail, because you have the same power to help you that rules the universe.

I know that there is "a Divinity that shapes our ends," not because He is working in favoritism toward us, but because there is a great Power in the universe that is moving on toward success in all things that are good, helping on all that is noble and true; and when we are working for the same thing, we are in harmony with this great Force that is working, lifting, and helping. So when we are sick and want to get well, the first thing in the world for us to do is to get in line with Providence. Just get into harmony with the universe. We are out of tune. God who made us is always doing the best he can for us. It is no use to think God is going to do anything that is inconsistent. He can not do it. God can not cure the man that is smoking tobacco as long as he smokes. If he asks God to help him to get well, the first thing God will say to him is to stop smoking. The miracle that will be wrought will be to change that man's mind so that he will cease to make himself sick, cease sowing for disease. The same principle that applies to smoking applies to every other thing that is working against health. If we want to be well, we must work for health, sow seeds of health, and we shall as surely get it as wheat produces wheat, or as corn will produce corn.

HOW MUCH DOES IT COST ?

(Continued from page one)

tor's bills and numerous accessories to the sick room, nursing, dainties, medicines, and a hundred things make the bill for sickness very heavy. It is no unusual thing for men of comfortable means to be brought to bankruptcy through sickness in their families when they have the case confined to their own houses. Long years of sickness make a serious drain upon the resources of any family.

It is therefore not to be expected that an institution can take upon itself the financial burden of such cases without substantial remuneration from some source. The advertised and regular rates of board and treatment in the Sanitarium include many costly items. First, the patient has a large and airy room supplied with the most comfortable furniture, and kept in a condition of the strictest cleanliness. It is no ordinary hotel housekeeping that suffices in such an institution as this; every effort must be put forth to keep the rooms occupied by the patient in the sweetest, most wholesome, and sanitary condition possible, and the number of rooms that one chambermaid can care for is very few as compared with the ordinary caravansary. And those who care for the rooms must be intelligent and in every way trustworthy. Not every woman who can be picked up can do the work of keeping house in the Battle Creek Sanitarium.

Not only in the private rooms, but this same extra care must be extended to the offices, parlors, treatment rooms, and corridors as well. The extra expense of Sanitarium housekeeping over that of hotels is very considerable, as every place must be specially clean.

The charges include also table-board and service. Here again extraordinary pains and expense are incurred in order to provide food of the best quality, cooked in the most faultless manner, to accomplish which no expense is spared. The food is gathered from the remotest parts of the earth, fruits and nuts and delicacies for the sick are supplied without stint. All this means extra cost.

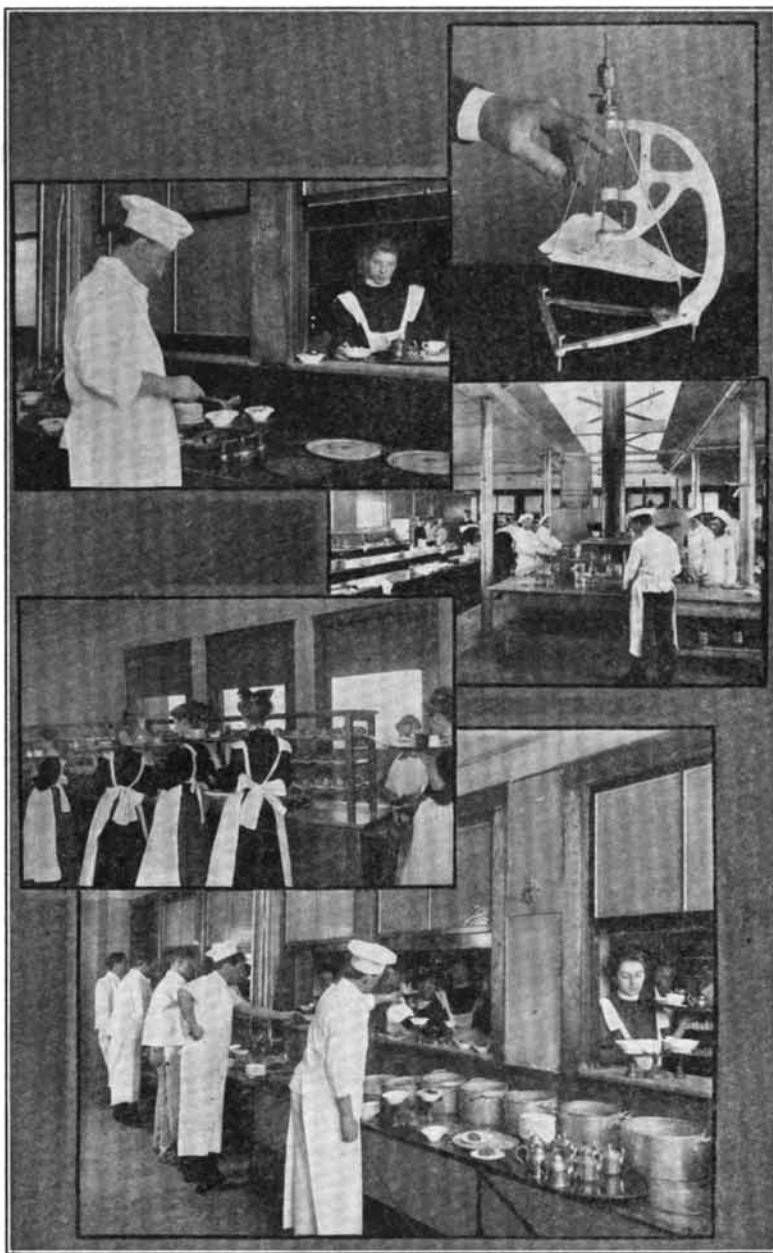
The guest of the Sanitarium is not put to the annoyance and expense of "tipping" the waiters in order to receive proper attention. He is requested *not to pay* any rewards or extra tips to anybody. All are to be treated alike, and tips are disapproved.

The regular charge also includes regular treatment in the treatment rooms once or twice daily. The ordinary charge for these treatments would be about two dollars each if given to one not a guest of the house. In addition to this, these treatments are given under the immediate direction and prescription of a competent physician. The physician sees his patients daily and oftener if necessary, and for this there is no additional charge.

Besides all this, the guests of the house have access to the gymnasium drills three times each day, for which there is no extra charge. Lectures by physicians and heads of departments are given daily and oftener,

to which the guests all have free access. The ordinary charge for these privileges is, say, twenty-five dollars per week, or three dollars and fifty cents a day. Now if any one thinks this is too much, let him go to a city and find a hotel that is built and run on the scale of the Sanitarium and see what it costs him to live there without the extra care he receives

the cost of boarding a person at the Sanitarium table is fully equal to all that is charged for it, so that nothing is gained by the dining department. In fact, it can be clearly demonstrated that the only source of revenue of the Sanitarium is found in the self-denial of the physicians and managers who are working for much less money than their services



THE CULINARY DEPARTMENT

at the Sanitarium, without the medical supervision and counsel, without the baths and treatments, without the gymnasium, and the many home-like features, and the educational privileges furnished him; and if he is not accustomed to being away from home he may be surprised to find that it costs him at least three dollars a day to barely live at such a hotel.

It is found by accurate calculation that

rightfully call for. Were it not for that fact the institution could not possibly continue to carry on its work.

The burden of a large indebtedness makes it absolutely necessary for the institution to show some financial gain, and it is the cherished hope of those who have the work in charge that when the indebtedness shall have been brought under moderate figures, then

(Continued on page five)

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THE WAY OF THE TRANSGRESSOR

JUST how long human experience would have to run before it became universally known and recognized that a course of neglect and offense against right principles will surely end in disaster, is an unsolved problem. Six thousand years of history in which this great truth, which ought to be of itself a sufficient barrier against wrong-doing, has been continuously repeated without a single failure, has had no perceptible effect upon the multitude. In Solomon's day he was made to say, "Because sentence upon an evil work is not executed speedily, therefore the heart of the sons of men are fully set in them to do evil." The same fatuous course of reasoning is in vogue at the present day, and men and women foolishly play with fate, when it has been demonstrated to an absolute certainty that the results of our ways are within ourselves and must sooner or later bear definite fruit according to the seed that has been sown.

The idea that a young man must sow his wild oats, that he must see both sides of life, that a young woman must be brought so close to that which defiles her innocent heart that she can feel its foul breath, is a silly and deadly delusion. A person may associate with that which is good and pure without partaking of it. No one is made inherently better by contact with the good. He must receive it and assimilate it into his own life before that which is noble and true can become a part of himself.

Not so with that which is unclean. The mere touch of the unclean thing contaminates that which is pure. The merest association with that which is vile corrupts and spoils that which is innocent. "Keep thyself pure" was the word of warning given to young men by the venerable apostle who first gave the Gospel to the world. The life and character once stained can never again be restored by human effort, the blemish always shows. The evil once incorporated into a man's consciousness abides there even though he may come to hate it. He has an enemy in his house that he can not wholly expel.

We can not afford to experiment with evil. No man can afford to sacrifice innocence and purity. These terms are, we are aware, more or less effeminate in the minds of those who have trodden purity under foot and have defiled their emotions and aspirations; but purity and innocence are cherished in heaven, they are the pride of the angels above, and they are the very highest form of earthly attainment.

Associated with purity is happiness and health, nobility and glorious success. Whether we consider moral or physical life, the truth is the same. Strict conformity to that which is right, careful association with that which is pure, a ready and hearty reception into our hearts of that which is good and a studious avoidance of everything that is immoral, immodest, unwholesome, and unsound, is the price to be paid for that which is really worth living for.

RATIONAL TREATMENT

(Continued from page one)

will tone up the quality of the blood, then it's all right; and yet, probably the exercise will do him much more good than the medicine.

Exercise increases the number of blood-cells in the blood. It is brought about in this way: Exercise sends the blood from the internal organs out into the outside of the body. The blood-making organs of the body can not make a large quantity of blood in a minute; but the great tendency is toward a congestion in the internal organs, and the thing that happens in exercise is that the blood is taken out from the internal organs into the external parts. Many people come to us where congestion in the internal organs is very marked. Perhaps the abdominal organs are weak, and the stomach is beginning to drop down and the intestines are pro-lapsed, and sometimes the liver has dropped down, and the kidneys are out of place, and all the other organs are dislocated. The tendency with this condition is for the blood to settle and accumulate there, forming a congestion. This congestion of the internal organs becomes chronic and is a very serious thing. It will not, perhaps, take a person's life, or give him typhoid fever, but it keeps him in a state of chronic invalidism and is liable to bring on some of many troubles. It is very important to get the blood near the outside and keep it circulating around. One of the best ways I know of to accomplish this is by exercise.

Another important thing, of course, is to give the abdominal organs proper support so that the blood will not collect there and remain. But exercise will do very much to strengthen the abdominal muscles, and there are special exercises that increase the circulation about those parts affected, and so, while it is a simple thing, it is also very important. The blood-making organs require time to make blood. But a man who keeps up his exercise day after day will find that

the number of blood-cells in his body has increased.

Exercise, as you all know, produces an appetite. A man who exercises has, physiologically, to eat more food. You can not expend the energy of the body without supplying it. The food that we take into our bodies produces energy and material, and the energy leaves the body in the form of heat and muscular activity. The heat of the body and the energy for performing the various bodily functions, and all we expend in our various duties through the day, come from the food we eat. Nominally, the receipt and expenditure are equal all the time; the amount of energy taken in should always equal that which passes out. Of course, in different individuals there may not be an even balance, but the man who does more work must eat more food in order to do the work.

Exercise increases the secretion of gastric juice in the stomach. I am not prescribing exercise for every individual here to-night. Exercise should be prescribed by the physician. One man will need more exercise than another, and exercise, I think, should never be taken to a point of extreme fatigue, only the degree of mild fatigue. Exercise increases the muscular tone of the stomach. A condition that we frequently find is that the muscular walls of the stomach have become weak and need toning up, and exercise will serve to do that. Exercise increases the peristaltic action of the intestine and often relieves trouble of the intestine; sometimes that is all that is necessary to relieve that condition. It also increases the activity of the liver; it increases the secretion of the skin; it increases the activity of the kidneys; it strengthens the muscles of the heart. There is no muscle in the body the function of which would not be increased by exercise.

The man who sits in his office has weak muscles, and his heart, which is a muscle, is consequently weak. Exercise is the best thing he can make use of, and by taking it he can build up the body, can increase the strength of the muscles and make his heart stronger. Exercise helps the muscles, makes them stronger; but it does more than that; it makes the whole nervous system stronger. The muscles are under the control of the nervous system. Every time a muscle contracts, it is because we send down to our muscles a nervous impression from our brain. Exercise gives stability to the nervous system as well as to the muscular system.

Exercise, I think, is one of the important things in the training and the education of the child. It gives stability to the brain, and to the whole nervous system, that can not be had in any other way. We can make use of exercise in treating nearly all ordinary dis-

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cases. In cases of indigestion, and cases of weak heart, exercise is very valuable. In certain cases of paralysis, exercise is one of the most valuable measures. When one is paralyzed, the way from his brain to the muscle is intercepted somewhere. It may be in the brain, it may be in the spinal cord, it may be in the muscle, somewhere the nerve is cut off by disease so the muscle can not act. If the paralyzed man exercises whatever part is affected, by and by he establishes a pathway between his brain and the muscle, and that is brought about by the effort of the will in sending down these nerve impressions. Now, a nerve impression, as a rule, travels along a nerve fiber at the rate of 120 feet a second, in very much the same way as an electric current travels over the electric wire. It may start at different places; when the movement is a voluntary one, it starts in the brain. When it reaches the muscle it causes the muscle to contract.

There are many other diseases in which exercise is very valuable. For instance, diabetes, where there is a large amount of sugar in the blood, which passes out through the kidneys. Of course, a man who is weak and thin in flesh and exhausted, should not be put on a severe course of exercise; but where there is an excess of flesh, hard exercise is one of the best things in the world. Exercise burns up the sugar in the body. The way exercise works in diabetes is this: There is sugar in the blood, and that passes out through the kidneys as sugar, and so irritates the kidneys. Diabetes, by the way, is not a disease of the kidneys, as many people suppose; it is a disease of nutrition. There are many different forms. If we give the patient plenty of exercise, it burns up the sugar. A gas is thus formed which is eliminated by the lungs. Along with the exercise we use the cold baths; and these two things together are very, very valuable in treating diabetes.

Then, in cases of obesity exercise is very valuable. Here again the reason for taking exercise is that it increases oxidation. In cases of obesity we want to burn up fat; in cases of diabetes we want to consume sugar.

We might continue this study much farther, for exercise is of great advantage in many of the common ills that flesh is heir to—in stomach troubles, in weakness of the heart action, and in most of those complaints in which tonic effects are required, proper exercise is a useful agent.

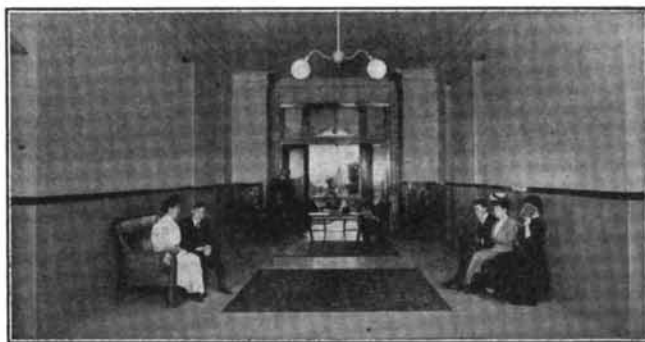
A beautiful calendar, issued by the Michigan Agricultural College, has been received at this office. It gives a number of pictures of buildings, campus scenes, laboratories, etc. To those who have known the college for many years, it brings vividly to mind the great progress made by this institution.

The latest feature of this noble school is to offer busy farmers courses one week in length. This year during the week beginning Feb. 14th will be given instruction in corn and other farm crops. The following week will be devoted to fruit culture, soils, crops, fertilizers, etc. The week beginning Feb. 28th will be turned over to the dairy-men of the State. The next and last of the one-week courses will be devoted to those who are interested in swine.

HOW MUCH DOES IT COST?

(Continued from page three)

more shall be done in the way of assisting those who can not now afford to have the benefits of the Sanitarium. But with the present reasonable charges, we are fully convinced that no one can afford to remain at home to combat with disease, even from the standpoint of money cost. The facility with which the sick are treated, the almost certainty with which they recover, the rapidity with which they recover, and the knowledge which they gain in retaining their health,



ONE OF THE FOYERS AT THE END OF THE CORRIDOR

make it very much cheaper in the end to avail one's self of the benefits of the help of the Sanitarium.

Three months at the Sanitarium may cost, say \$400; but what will it cost to remain at home, losing a year's time, paying doctors' bills and many other expenses and deprived of the hundreds of comforts and helps that are to be found in a place where a business is made of caring for the sick according to the best, most approved and perfected methods in every particular?

STUDENTS' CONVENTION

The American Medical Missionary College at the Students' Volunteer Convention at Rochester

BY KATHERINE GEROW

THE above College had eight representatives at the Students' Volunteer Missionary Convention recently held in Rochester, N. Y. With one accord they say, "It was good to

have been there." This was because those who were there came away with a new inspiration, with a clearer vision of life in all its meanings, with a deeper sense of personal responsibility, and they wanted to share with others the good things that had come to them.

The arrangements for the great convention had been well planned and carried out. The hospitality of the people of Rochester could not be surpassed, the decorations of the hall with all manner of flags of all na-

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tions, and the conspicuous "watchword" were emblematic of the purposes of the convention—the evangelization of the world.

It was necessary to hold overflow meetings to accommodate the many whom the hall could not contain. The opening thought of the convention was that of heart-searching. "Is my Christianity worth propagating? The world needs Christianity; will mine meet that need?" Students came from colleges and universities all over the land and they obtained such a view of the world's needs as they had not obtained before. Some were waiting to find a reason why they should volunteer for foreign mission service. During the convention days they were trying to find reasons why they should not volunteer, and they did not find them. The best part of the convention was the fitting of lives into God's plan.

The object of the meeting was not so much to impress the mind with the importance of being foreign missionaries as it was to lead every mind to the point of complete surrender to the will of God.

After their return a students' meeting was held, where the delegates gave to a goodly company a few of the impressions they had received.

QUESTION BOX DEPARTMENT

EACH Monday evening Dr. Kellogg conducts a Question Box talk in the Sanitarium parlor, where all guests and patients are at liberty to submit questions relating to health and health topics.

Q. I have severe pains around my heart. Some one says it is rheumatism of the heart. It starts as a hard pain, which gradually fills the chest with shooting pains; then it almost stops the breath, and then gradually subsides. What is it?

A. Probably that pain is not in the heart at all, but in the chest wall.

Q. How should an attack of acute indigestion be treated?

A. By starvation. That is a case in which fasting is excellent. First of all, cease to eat. Then, if there is food in the stomach, drink a quantity of water, and rinse it out. If you can not get it out in that way, take a stomach tube and wash it out. Then rest, fast for a day or two, and give the stomach a chance to get well. Then eat simple food like rice, or some other very simple food, and buttermilk.

Q. What can be done for a pain in the stomach about three hours after meals on account of hyperacidity?

A. The thing to do is, don't wait for three hours after meals, but two hours and a half after meals. Before that pain comes, drink a couple of glasses of real hot water, and that will dilate the pylorus and flush the stomach out, dump it, so to speak, into the small intestine, and you won't get the pain.

If the hot water alone is not sufficient, use a little soda. If you are troubled in that way, you will find the siphon bottles containing carbonate of soda water useful; if you take a glassful of that about two hours and a half after meals, it will prevent that pain.

Q. How manage about drinking water when you are where the wells are on an inclined plane below barns and chicken pens and hog pens?

A. I should leave the country. I would not live in such a place. If you have reason to suspect the water, by all means boil it; and never under any circumstances drink the filthy drainage from barnyard or pigpen.

Q. What is the cause of and cure for hiccough?

A. It is generally produced by irritating liquids in the stomach, and washing it out with the stomach tube will almost always stop it. That is the surest thing I know of. Sometimes hiccough is a very simple matter and does not require such drastic remedies—can be easily relieved by simply holding the breath. Hiccough is a spasm, a little fit, so to speak; the diaphragm has fits, and they come once in five seconds, or generally once in ten seconds, or twenty seconds. Take out your watch, and get the rythm of it, and if it is once every fifteen seconds, wait ten seconds. In five seconds more it is going to come again; so take a very deep breath, hold it with all your might; watch the time, and see it go by; and you have broken up the spell.

Q. Is it wise for a man who has smoked heavily for years to cut off immediately?

A. It is not only wise, but it is the only sensible thing he can do. There is not the least bit of danger in it. There is no more ridiculous idea afloat in the world than that it is dangerous for one to stop doing wrong too suddenly; that one must wean off on evil things, must taper off. There is no good in tobacco; there is no good in whiskey; there is no good in any poison; and they can all of them be dropped off immediately without the least bit of danger.

Q. Is moderate smoking, say three times a day, injurious?

A. Yes. It is so injurious that it hurts my feelings to have a man smoking even once a day, anywhere in my vicinity. It inconveniences every person who is in contact with the smoker, and who is not accustomed to

smoking tobacco. There is nothing so characteristic of smoking as the effect it has to make people selfish. I never yet had a smoker ask me, "Doctor, do you think my smoking is bad for my wife? Do you think it will do my children any harm for me to smoke? Do you think if I smoke it will depreciate my vitality in any way that is likely to be transmitted to my children?" If it does not hurt him, he is willing to smoke. But the smoker gets the worst of it. It is without any question doing him harm. There is no such thing as one getting so used to this poison that it does not do any harm. There is no such thing as moderate smoking. One cigar a year is immoderate smoking.

Q. What causes fever in the intestinal tract?

A. Autointoxication.

Q. How should an attack of cholera morbus be treated?

A. By the absolute diet, as the French say; that is, eat nothing at all; take nothing but water for a day or two or three; go on a water diet immediately. Then, when you begin to eat, take nothing but cereals. Rice is the best of anything, perhaps, rice gruel; and after two or three days, begin taking buttermilk or yogurt buttermilk. The same treatment is good for cholera infantum. Hot water drinking, fomentations, hot compresses, hot blanket packs, hot baths, if there is a general chill, are other valuable measures. The regulation of the diet is the most important.

Q. Are goiters of the neck entirely cured by the treatment given here at the Sanitarium? What home treatment would you suggest?

A. There is no such thing as a specific treatment for goiter. At the Sanitarium we

Art Needle Work

CHRISTMAS NOVELTIES

Beautiful hand-made Handkerchiefs.
Pierced Brass. Everything in an up-to-date Store.

M. Brogan 74 W. Main St.

THE BATTLE CREEK SANITARIUM AND HOSPITAL TRAINING SCHOOL FOR NURSES, BATTLE CREEK, MICHIGAN

This institution offers a three years' course of instruction for women and two years for men. In addition to the usual subjects taught in hospital training schools, special attention is given to all branches of physiologic therapeutics, including hydrotherapy, radiotherapy, phototherapy, kinesotherapy, or manual Swedish movements, and massage.

Among other special advantages offered are laboratory instruction in bacteriology and chemistry, the use of the microscope, urinary analysis, practical course in cookery and dietetics, medical gymnastics, swimming, anthropometry and open air methods.

Applicants received whenever vacancies. The next class will be organized the first of April, 1910. For full information address

Sanitarium,

Battle Creek, Mich.

treat each case according to its merits. Some cases may be cured by the application of galvanism; some cases by the regulation of diet; but many goiters are due to intestinal autointoxication. That perhaps is the chief cause of goiters. Some have gone so far they can not be cured by this means, and the application of the X-ray is extremely valuable in these cases. It generally results in help, especially in the cases of exophthalmic goiter. Some cases have gone still farther, especially cystic goiter, which forms large masses which must be removed by a surgical operation. We take whatever measure is necessary, and the measures can generally be depended upon as being successful. It is very rare indeed that this disease can not be mastered when it is taken in hand properly.

Q. Do you consider porridges good food?

A. Some are, and some are not: Oatmeal porridge is not a good food; it is very constipating, producing an exceedingly bad effect upon the bowels in particular—one of the very worst of all foods I know of,—the one which is most productive of constipation is oatmeal porridge.

Q. In what position should a person lie to properly rest?

A. In any way he feels comfortable. He may lie flat on his back without any pillow; stretch straight out in bed, if he is comfortable. He may lie upon his right side, or left side, straight, or with his knees drawn up. When a person goes to bed and goes to sleep, you can not keep him in order if you try. He will roll around when he is asleep, and it is no use to prescribe what position he should take; he will involuntarily take the position in which he is most easy and comfortable, and that is the one in which he ought to lie. But do not lie on a bolster. Lie with the head rather low. The head needs blood.

LITTLE AND GREAT

A TRAVELER through a dusty road
Strewed acorns on the lea,
And one took root and sprouted up
And grew into a tree.

Love sought its shade at evening time
To breathe its early row,
And age was pleased in heats of noon
To bask beneath its boughs.

The dormouse loved its dangling twigs,
The birds sweet music bore,
It stood a glory in its place,
A blessing evermore.

II

A little spring had lost its way.
Amid the grass and fern,
A passing stranger scooped a well
Where weary men might turn.

He walled it in and hung with care
A ladle at the brink,
He thought not of the deed he did,
But judged that toil might drink.

He passed again—and lo! the well,
By summers never dried,
Had cooled ten thousand parching tongues
And saved a life beside.

III

A dreamer dropped a random thought,
'Twas old—and yet 'twas new,
A simple fancy of the brain
But strong in being true.

It shone upon a genial mind
And lo! its light became
A lamp of life, a beacon ray,
A monitory flame.

The thought was small—its issue great;
A watchfire on the hill,
It sheds its radiance far adown,
And cheers the valley still.

IV

A nameless man amid the crowd
That thronged the daily mart,
Let fall a word of hope and love,
Unstudied from the heart.

A whisper on the tumult thrown,
A transitory breath,
It raised a brother from the dust,
It saved a soul from death.

O germ! O fount! O word of love!
O thought at random cast!
Ye were so little at the first;
But mighty at the last.

—Charles Mackay.

Dr. H. L. Kirschner, of Oakdale, Iowa, who is interested and experienced in the fight against tuberculosis, is a guest at the Sanitarium and has announced a lecture on the subject of tuberculosis prevention, to be given in the near future.

ARRIVALS

THE following people arrived at the Sanitarium during the week which ended January 9: A. B. Gruse, Ind.; Mrs. Amos Stevens, Mich.; Andre Beyer, Mich.; William T. Herpkheimer, Mich.; C. J. T. Frincke, Mich.; C. W. Sutton and wife, Mich.; A. D. Gaines, wife and child, Minneapolis; Martin L. Baker, Chicago; Grace B. Homman, Ind.; Mrs. Leo Nussbaum; Henry W. Stough, Ill.; D. B. Coughran, Minneapolis; Chas. B. Harah, Pa.; D. S. Spooner, Philadelphia; A. D. Williams, Pa.; Adele Rickey, Ind.; Samuel Ross, Detroit; E. W. Murphy, N. Y.; E. W. Scott, N. Y.; Mr. and Mrs. Archie M. Larsen, Chicago; P. Medalie, wife and son, Mich.; Elma Frey, Ind.; Mrs.

A. D. Hannah, Chicago; Miss H. Hannah, Chicago; Geo. L. Albert, O.; Elizabeth Moyler, Mich.; Jack Moyler, Mich.; B. F. Mandelbaum and wife, Chicago; W. M. Danner, Boston; J. L. Robbins, O.; Chas. Mullis, Cincinnati; J. W. Blood, Ga.; R. H. Whitmore, K. C.; Mr. and Mrs. W. J. Harris, Ia.; Mrs. Chas. Rudat, Neb.; H. J. Strand, Minn.; T. Vollmer, Minn.; Mat. Fillion, Mich.; Mrs. O. H. Griggs, Minn.; Iver Hesdall, Minn.; Mrs. Charlotta Huntington, O.; D. B. Barnes, O.; David Johnson, Wis.; H. B. Phillips, Toronto; J. F. Phillips, Toronto; Wm. McBride, Seattle; Mrs. James Quigley, Pittsburgh; W. H. Theward and wife, Wis.; D. W. Brunton, Denver; Mrs. J. S. Griffiths, Chicago; Mrs. Josephine Griffith, Mich.; E. C. Davis, Mass.; L. R. Willard, Ia.; Mrs. Anna White, Mich.; B. R. Kenowithy, Phila.; E. E. Covert, City; W. E. Goff, City; Mrs. Dubuque, N. Y.; O. H. Mannro, N. Y.; John Dye, Tenn.; Henry E. Berghoff, Ind.; J. G. Peterson, City; E. H. Rathbun, N. Y.; Jas. Rathbun, Boston; Mrs. M. E. Hart, Mich.; B. Roesing, Chicago; B. F. Gray; Chas. H. Short, Pa.; M. I. O'Brien, Pa.; W. Van Cleve, Seattle; E. M. Ware, St. Paul; D. S. Hintz, O.; W. J. Blood, Mich.; David Jordan, S. C.; Mrs. A. Miller; D. J. Hopkins; Mrs. F. O. Cunningham, Mass.; Mrs. E. Underhill, Ky.; Miss S. Underhill, Ky.; Mr. and Mrs. W. B. Warner, Wis.; Miss Bartlett, Wis.; Mrs. S. Browllett, Ill.; Dr. A. L. Nickerson, Ill.; S. W. Hover, O.; G. T. Hover, O.; C. O. Manspeaker; H. T. Myers, Chicago; Clara Walker, Ill.; Mr. and Mrs. H. W. Stiekney, N. Y.; Mr. and Mrs. Chas. E. Kelley, N. Y.; John L. Reddick, Mich.; Joseph Walker, Mich.; Molly J. Reed, O.; Effie M. Wilson, O.; Blanche Deering, O.; John Eberly, O.; Robert Stewart, City; R. I. Armour, St. Johns; Wm. E. Ware, City; W. M. Edgerton, S. D.; W. F. Stanley, O.; C. F. Calkins and wife, Okla.; Mrs. C. D. Roberts, Okla.; Claude Chappell and wife, Mich.; E. S. Beckwith, Chicago; E. J. Martin, Chicago; I. M. Smith, Marcellus; D. J. Hopkins; Rev. J. A. Northrop, Ill.; Mrs. J. A. Northrop, Ill.; Alice M. Northrop, Ind.; F. T. Reid, S. D.; J. McGunagle, Wyandotte; Hugh T. Tracy, N. Y.; Chas. H. Wheelock, City; F. S. Chambers, Pa.; Mrs. T. L. Gordon, Detroit; C. D. Moran, Ia.; Martin Luther, Ia.; Richard E. Luther, Ia.; A. Sigal, Pittsburg.

TWO COURSES IN DOMESTIC SCIENCE

The One-Year Course, intended especially for Matrons and Housekeepers or for those who desire it for its educational value, includes General Cookery, Invalid Cookery Institutional Cookery and Practice Cookery, Anatomy and Physiology, Household Chemistry, Home Nursing, Household Microscopy, Household Economics and Household Architecture, Sewing, Medical Dietetics, Theory, Table Service, Physical Culture, etc.

The Two-Year or professional course, intended especially for Dietitians, Lecturers, and Demonstrators, includes all the studies of the one-year course, and in addition Advanced Chemistry, Advanced Physiology, Sanitary Science, Bacteriology, and Hygiene, and Advanced English.

ONE SPECIAL FEATURE of this school is that students are given an opportunity to meet a large part of their expenses by work along lines which aid them in their studies.

**The Battle Creek Sanitarium School
of Health and Household Economics**

**BATTLE CREEK
MICHIGAN**

News and Personals

Mr. W. J. Harris, of Lewis, Iowa, is here with his wife.

Mr. and Mrs. J. H. Whitney, of Albany, N. Y., are among our guests.

Rev. J. A. Northrup and family, returned missionaries from India, are taking rest and treatment with us.

Mrs. E. D. W. Holway, of Minneapolis, stopped a few days at the Sanitarium on her way home from the East.

Mr. J. L. Reddick, of Niles, is again at the Sanitarium. He is a confirmed believer in and friend of the institution.

Rev. Julius Soper, from Japan, who is stopping at the Sanitarium with his wife, was called to attend a county missionary convention at Three Rivers last week. The people there prevailed on the doctor to remain with them over Sunday.

Rev. L. C. Randolph, D. D., of Alfred, New York, spent two days at the Sanitarium during the present week meeting his many old friends, all of whom are glad to see him. On Tuesday evening he gave his famous lecture, "That Delightful Fellow, the American Boy," to a delighted audience in the main parlor.

Mrs. J. S. Griffiths, of Chicago, an old patient, is here with her daughter-in-law, who is now the patient and is doing well.

Among the names appearing on the register are those of Mr. and Mrs. B. F. Mendelbaum. The latter is to take treatment, and the former is engaged with the Toasted Corn Flakes Company in the Western territory.

Mr. Arthur Bates, of England, arrived at the Sanitarium this week, having in view preparatory study for the medical course which he purposes to take in the American Medical Missionary College. Mr. Bates was here two years ago, remaining only a short time, but having made more thorough preparation for leaving home, he now returns for a longer time.

The John Eberly Concert Company of Cleveland gave a high class entertainment in the Sanitarium gymnasium on the evening of the 8th. Mr. Eberly is a singer of rare qualities, having a rich baritone voice which he manages with skill and grace. Miss Reed, who forms an important part of the company, is a reader of talent and gives her hearers the best of satisfaction.

The time-honored and inspiring oratorio, "The Messiah," was rendered at the Independent Congregational church in this city on the evening of the 5th instant by the Amateur Musical Club under the leadership of Professor Barnes. Our city is indebted to those who each year favor us with this great song evangel. That it has never been ren-

dered better than on the last occasion is the general verdict of those who should know.

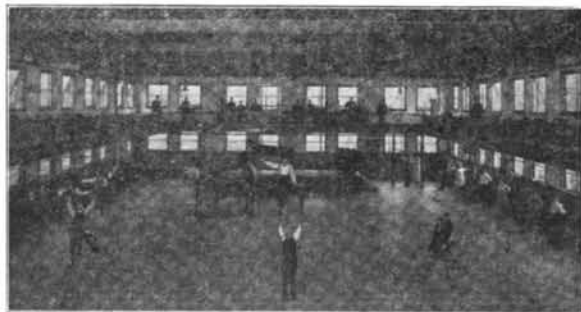
The following articles have recently been lost near the Sanitarium by members of the medical classes: A gold scarf pin of dragon design, set with pearls; a navy blue belt with an enamel buckle; and a belt pin of oxidized silver. Aside from their intrinsic value, these articles are much prized by those who have lost them, and they will be greatly obliged by having them returned to the editorial office of the IDEA, in the College building.

The Sanitarium pulpit was occupied last Sabbath by Dr. J. F. Morse, who gave a most interesting account of the recent Students' Volunteer Missionary Convention held at Rochester. Several meetings have been addressed by those who were at the convention, giving the impression that the meeting was one of very great interest and importance and that our delegates brought home with them a good share of the enthusiasm and power of the occasion.

The Symphony Orchestra of this city has arranged for a series of three concerts to be given at the Independent Congregational church on the evenings of February 17, April 12, and May 11. The first is to be given by the celebrated Kneisel Quartet of stringed instruments; the second and third will be by the orchestra under the direction of Prof. John B. Martin. The price for season tickets is \$2.50, and they may be had of the Sanitarium cashier.

Battle Creek Sanitarium School of Physical Education

A GREAT OPPORTUNITY FOR YOUNG MEN AND WOMEN. Expenses may be largely paid in work. Gymnastics—German and Swedish; Dietetics; Massage; Hydrotherapy; What to do in Accidents, Emergencies and Common Maladies; Medical Gymnastics. Anatomy and Physiology; Chemical and Anatomical Laboratory work; Large Indoor and Outdoor Gymnasium and Swimming Pools.



Large Faculty of able teachers and trainers. Course one year. Tuition full year, \$85.00; Board and Room, \$3.00 to \$3.50. A number of students may pay their way in work.

Mr. Horace Fletcher will give a course of lectures on vital economics, and Mr. John F. Stapleton, formerly of the Yale Gymnasium, a special course on theory and practice of Swedish gymnastics.

The next regular term (new class beginning) opens January 3, 1910.

Any who are interested will be sent illustrated announcement with further details on request. Address:

The Battle Creek Sanitarium School of Physical Education
BATTLE CREEK, - - - MICHIGAN

THE · BATTLE · CREEK · IDEA

Vol. III No. 7

BATTLE CREEK, MICH., JANUARY 21, 1910

Price 2 Cents

THE COLD BATH; WHAT ARE ITS EFFECTS?

Doctor Riley Lectures to the Sanitarium People on the Philosophy and Physiologic Effects of the Cold Bath

It is now winter, and naturally we are led to think of the cold with which we are invested, and some people are inclined to be much afraid of cold in whatever form it

Purveying For The Sanitarium

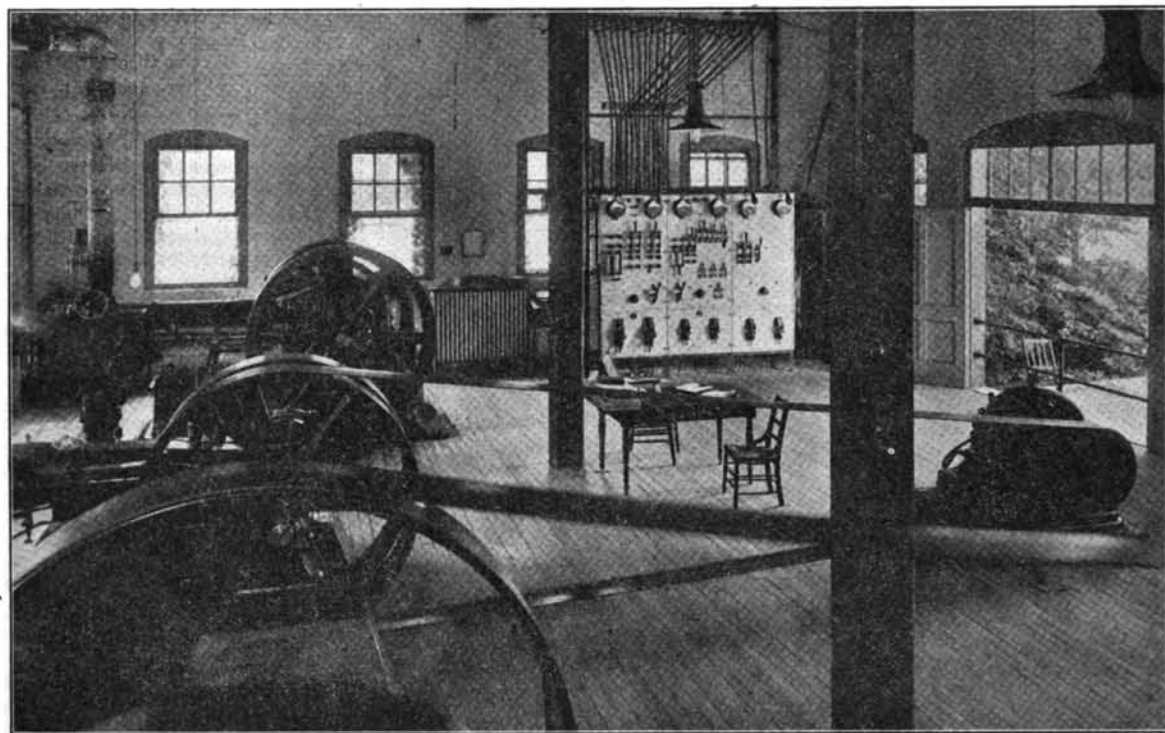
How the Multitude is Fed at the Battle Creek Sanitarium—Some Facts, and a Few Figures

THE feeding of a family of from twelve hundred to sixteen hundred persons is a work that involves no small amount of attention and outlay, even when they are on the ordi-

THE GREAT VALUE OF FRESH COLD AIR

As Set Forth by the Superintendent of the Battle Creek Sanitarium in a Lecture to His Patients

FRESH air is the best friend we have. And there is no time when we can get such good fresh air as in winter-time. There is no decomposition, no foul gases, there is no dust,



THE SANITARIUM DYNAMO ROOM

comes, except perhaps in ice-cream or ice-water, and even they are not very popular nowadays, for which we may be thankful. Some people are very much prejudiced against cold weather, and flee from it to some more effeminate climate where they can bask in sunshine. Others den themselves up in their close, over-heated houses.

I wish to-night to speak to you of the cold bath and its uses and abuses. You all have the opportunity to use the cold bath here, and we often speak of its effects but not all

(Continued from page six)

nary fare, and the expense of labor and money are increased when the diet must take a special form as in the case of people who are sick and convalescent.

Nor is the care of such a family limited to the matter of food alone, for they must be housed and warmed as well. Such large communities do not usually spring into existence at once, but grow by accretion from small to large proportions, and this gives an opportunity for the arrangements and organization that has the purveying in charge

(Continued on page three)

the air is absolutely pure. In the summer-time you meet clouds of dust swarming with germs, frequently potent with mischief. But at this season of year the air which comes sweeping over fields of ice and snow is absolutely pure. There is life in it; and yet the majority of people house themselves up, content to stay away from this life-giving agent, pure air.

THREE CUBIC FEET OF AIR SPOILED AT EACH BREATH

The air we inhale at each breath ordinarily

Original from

UNIVERSITY OF MICHIGAN

is two-thirds of a pint, but when that air comes out of our lungs it is so laden with poisons taken from the blood, the result of decompositions taking place in the body in various places, that, according to the most eminent scientific authorities in the world on the subject of hygiene, Dr. Parks of England and many others, each breath spoils three cubic feet of air, or three-quarters of a barrel of air. Suppose there are 400 people in a room, spoiling at each breath 300 barrels or 900 cubic feet of air. It would not take very long to vitiate all the air in a large room.

If the air we breathe out were a different color from that which we breathe in, we would soon discover the point, and it is not very hard to make an experiment of this kind. Suppose that every person in this room at this moment had a pipe or a cigar and was smoking, how long would it be before the air of the room would be filled with smoke? The air is drawn in with the smoke and is breathed out mingled with the smoke, and the smoke we see in the room represents the breath that has been exhaled; so the room that is filled with tobacco smoke is foul breath from other lungs. This enables us to see that when we live in close houses we are in a polluted atmosphere. If one person should sit down in a room ten by twelve, and eight feet high, for half an hour, the air of that room would become very much polluted. We should know that each one of us is a factory of poison, and we are polluting everything about us. A man is in that respect exactly like a furnace. Put a live charcoal burner into your room and it is sending out its poisonous gases, and the air is becoming more and more impure all the time.

The body is a furnace. Food is fuel, and the body furnace is continually converting that food or fuel into poisons, which are contaminating its environment. So it becomes a serious matter for us to consider, how we shall keep our surroundings clean enough to live in. Now, the savage knows he pollutes his surroundings, so he builds a temporary home, and by and by he moves on and leaves the filth behind; and that is the way he deals with it. But the civilized man builds a costly house, which he can not go off and leave, and the impurities accumulate. When a man goes out West to settle, he builds his house, and then digs

TWO HOLES BEHIND THE HOUSE.

From one he gets water for culinary purposes, and the other hole is used a receptacle for all kinds of filth. The liquids that go down into the cesspool filter down through the ground and finally reach the well, and so a vicious circle is formed there. Bowel troubles follow, and all kinds of digestive disorders, catarrh of the stomach, catarrh of the bowels. The germs which he swallows multiply and infect the whole body and the man becomes a fit subject for a sanitarium or some other infirmary.

At this time there is not the least excuse for such conditions either in drinking or breathing. There is more temptation in the winter than there is in the summer time to breathe impure air, because winter air is cold, and one does not like the cold. Cold is recog-

nized as an enemy of life; it is so in a certain sense; we have to protect ourselves against it; but we are so much accustomed to warmth, we rather toast ourselves before the fire; we like hot drinks; we like a hot water bag at our feet at night. We are accustomed to be warm, but it is relaxing; it is depressing; it takes the edge off the nervous tension, but we cultivate it, and before we know it we get too much of it.

TOO COLD AT 85°

I remember some little time ago going into a room and finding an old gentleman hovering over a steam radiator, and he said, "Doctor, it is so cold." I said, "It seems warm to me," and I looked at the thermometer and the temperature was 85°. If it had been on a summer day, the old gentleman would have said, "O how insufferably hot; I do believe it is 85° in the shade; just think of it!" Here this good friend had an opportunity to have it cool and pleasant as he liked. In the summer if he could have found some nice, cool, shady place where it was 65° or 70°, he would have said, "What a delightfully shady place this is." But in winter time he actually bottles the air up so as to carry the heat up to 85°, which in summer he would consider an uncomfortably hot day. People in winter actually subject themselves to a higher degree of heat than they enjoy in summer time. What a great mistake this is, when there is such powerful, wonderful tonic in cold.

I want to show you now how it is that the pure cold fresh air of winter may be a blessing, causing us to express in some degree the beautiful workmanship of the Creator in his masterpiece. Now here are the lungs, and the heart is between them. The lungs are masses of cellular tissue, made up of an almost infinite number of minute cells of which there are so many that if the delicate lining membrane of an active pair of lungs were spread out, it would cover a space of two thousand square feet. The blood of the body is passing under that every minute and a half. The membrane is so thin that it does not afford any obstruction to the gases passing out and in; in fact, the movement of gases is more rapid perhaps than it would be if the membrane were not there as a medium. The poisonous gases escape through the membrane, and the oxygen passes in through the membrane into the blood and is carried to every part of the body.

Now, if we fill our lungs with impure air, the blood is exposed to that impurity. Every breath of impure air we take in is simply poisoning the blood; but if we breathe pure air, then the impure blood that comes to the lungs to be cleansed and purified, is exposed to the pure air and it is washed.

WASHING CLOTHES AND WASHING THE BLOOD

The difference is exactly the difference in washing a garment in muddy water, and washing the same garment in pure water. Go down to Mexico and you will be almost certain to see the Mexican women washing dirty clothes in the running stream; and the same will be seen in many other countries. These women all have the good sense to wash their clothing in a running stream where the water is kept clean and pure.

The ordinary process of washing, as civilized people wash, is not a clean one at all. We only dilute the dirt, never get anything clean. The laundrymen put in a whole lot of dirty things with soap, then perhaps the water is turned off and some other water put on, and the dirt is diluted a little, and possibly a third water is put on, and the dirt is diluted again; but it is only diluted, the garment is not thoroughly clean. But the Mexican woman washes her garment clean, and there is no odor of some decomposed thing attached to your towel, because the garments are washed clean in running water.

That is exactly what we need for the blood. We want the blood washed in pure, running air. But we can only get the pure running water for the blood when we breathe in pure air, and then have the impure air which we have polluted carried off as quickly as possible.

Many people are actually afraid of fresh air. A man one day told me he knew he was going to take a desperate cold; he saw the window open; I held my handkerchief before the window, and the handkerchief flowed right out; the air was going out instead of coming in, but it made him shiver when he saw the window open. I knew one woman who was so sensitive to cold that she took cold every time she went out without her gloves on. That is all absurdity; it is simply a sort of "frigophobia"—a fear of cold air.

THE POWER OF COLD AIR

to destroy poisons, to lift the body up, to vitalize it, energize it, rejuvenate it, is so marvelously great, it is a wonder that it was not discovered long ago. We find when we come to look into the matter, however, that it was known more or less away back in original times, but it has been forgotten. Hippocrates, the father of medicine, knew that life in the open was one of the best possible remedies for almost any form of chronic disease. Away over in Roumania there is a grove called the sacred grove, and people are brought for hundreds of miles and exposed in that grove, and they get well. It is supposed that some beneficent genii live in that place, and that these beneficent spirits heal the sick who come there. It is the great healing power that is in the air, always there, and everywhere, and not simply in that grove, but in every place.

About thirty years ago a doctor went to the Swiss Alps with tubercular trouble; he found a spot that is now known as Davos Platz, and he got well, told people about it, and gathered them about him. And now there is a whole village there. There is scarcely any other structure in that town but hotels and boarding houses, and they are filled with people who are suffering from tuberculosis of the lungs. Although it is a cold place, never very warm even in summer, and is very cold in winter, with snow six or eight or ten feet deep, and nearly always cloudy in winter time, it has been found that people get well, and the colder the weather is, the faster they get well.

I visited this place seven years ago, and up on the mountain side I found the original sanitarium, carried on by the original discoverer of this method. The zigzag walks up

and down the mountain were all carefully graded and measured off, and every patient was compelled to go outdoors and stay outdoors for half an hour, no matter how cold the weather was, at least three times a day,—before breakfast, before dinner, and before going to bed at night. Cots were arranged, and they all lay down to breathe in the fresh air. Not another thing was done for these patients. They were simply herded up there on the mountain side to get the treatment outdoors. And the recoveries are so marvelous that people go there from all over the world.

NOT IN THE ALTITUDE

For many years doctors and other people have labored under the supposition that the curative power was in the altitude; so the patient was sent to Colorado, and to the Alps. I remember when it was considered that the most approved prescription a doctor could make for a consumptive patient was to tell him to go a mile high. In the last four or five years it has been discovered that it is not the altitude at all; the altitude is a disadvantage in many cases; and if a man can get well at all of tuberculosis, he can get well at sea level as well as anywhere. There is no great advantage in the Rocky Mountain climate. The same benefit can be found in any part of the United States if one will only get out doors and stay there.

I met a Colorado doctor some years ago who told me he had established a small colony and was making some experiments, and he said his patients got along fairly well but did not really begin to show the evidence of unmistakable improvement until the temperature got down to zero. When the temperature got down to ten degrees below zero, they all began to improve, had splendid appetites, and had power to digest; their blood began to improve, and they just went right on up; and I have been told the same thing down at the Rutland Hospital, in Massachusetts, where they have several hundred consumptives. The superintendent told me they always had better success in winter than in summer. I went into the hospital, and there was only one patient in the house, and she had on a cloak and shawl, and mittens on her hands, and was standing by a table trying to write a letter home. I said to the superintendent, "What temperature do you keep the house at?" "Oh," he said, "no temperature." "Do not you have any heat on?" "O no, we have heat on just twice a day for half an hour—to get dressed by in the morning, and undressed by at night. That is all."

He said, "When we have real cold weather, we have to send the patients outdoors to get warm." Now, that is the way the patients are cared for down at Rutland, a most successful State institution. Nearly every Arctic or Antarctic explorer that has come back has reported perfect health as long as they were in the cold regions.

Now I would encourage every one of you to get the benefit of the splendid, crisp air that has such a tonic in it you can not afford to miss it. This is a rare opportunity. If you want to have roses on your cheeks, and a good complexion, all you have to do is to go outdoors and get them—they are waiting for you outdoors.

PURVEYING THE SANITARIUM

(Continued from page one)

to develop and grow with the growth of the demand.

The present system of providing for the Battle Creek Sanitarium is the growth of thirty years, as is the institution itself. Those in charge have learned how to anticipate the wants of the family sufficiently in advance so that they are never found empty-handed when the time of need comes. The prehensile fingers of the great institution are always reaching out into fields distant as well as near, gathering what is to be required.

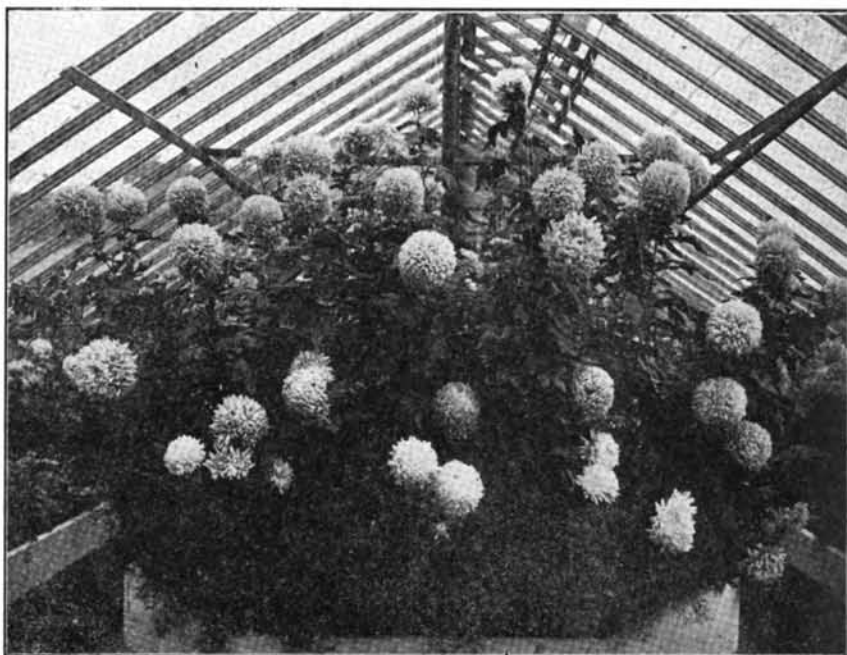
No meats or flesh of any sort have to be provided, which lessens greatly the work of

densation of steam is all returned to the boiler room, where it is reheated by the exhaust steam from the dynamo engines to 220 degrees before being returned to the boilers. The system of under-feed in the furnaces results in the combustion of the smoke and gases to the extent that the "smoke nuisance" is thoroughly eliminated, and far less coal is consumed than under the old arrangement.

But in the aggregate a large amount of coal is consumed even with the most economical apparatus. Twenty-five tons of coal are required each twenty-four hours when the temperature outside is at twenty above zero. A visit to the heating plant is well worth the while of those interested in procuring heat and steam in an economical way.

FOOD SUPPLIES

In the matter of food supplies a few sta-



CHRYSANTHEMUMS IN DECEMBER—SANITARIUM CONSERVATORIES

providing for the family in that direction. But the substitution of fruit, nuts and other more rare products offsets that matter.

HEAT AND LIGHT

The warming of such a large plant, consisting of at least a dozen large buildings covering many acres of floor space, and lighting them is no small undertaking. Formerly this has been done by different heating centers located near the principal buildings. Last autumn a large tunnel was constructed between the main building and those on the west side of the street and now the heating is all done from the central plant. This heating outfit is one of the most effectual and thorough to be found anywhere. A bank of ten boilers has been employed in running the central heating plant, besides several others in various other places. Recently an automatic stoker has been installed, and four large boilers now supply abundant heat for the entire group of buildings as well as power for the lights and for the machinery that is found in the laundry and the different shops. The water resulting from the con-

tistics may be of interest to the readers. Of apples there were purchased last autumn and placed in store 1,600 barrels. Of potatoes there were laid in store 6,000 bushels. The amount of bread consumed of course varies from week to week, and the supply is supplemented very largely by unfermented breads and zwieback, which are not included. The number of loaves during the past year was 40,282. Of oranges the consumption keeps up the entire year around and last year reached not less than 1,249 cases. With these are also 434 cases of grape-fruit and 1,429 bunches of bananas. Of grapes the Sanitarium uses on its tables and for grape-juice not less than 34,800 pounds. Of ice not less than 2,000 tons are put in store each winter. Of berries the Sanitarium purchased last year 61,000 quarts; of eggs, 41,319 dozen were used; butter (sterilized), 51,206 pounds; milk, 19,174 gallons, and of cream 27,928 gallons, furnished by about 550 cows under close inspection.

(Continued on page five)

THE BATTLE CREEK IDEA

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NATURAL MEDICINE

THE system of medicine adopted and practiced at the Battle Creek Sanitarium includes all those remedies and measures which go to aid the natural processes of the body. Disease, or sickness, is the disturbance or interruption of some of these processes. The various organs of the body are well able to perform their several duties throughout the natural term of life if their work be not interfered with by some accident or some habit that imposes upon them more than they can accomplish.

The ordinary man or woman forms his or her habits without any special reference to the relation those habits are to sustain toward the vital processes of the body, and it is a lamentable fact that there is an unnatural tendency in human beings to the formation of such habits as are inimical to the welfare of their bodily functions. This fact is not usually discovered until some part of the body most affected by pernicious practices has refused longer to do its appointed work. We frequently hear people say, "I did not know I had a stomach until I was forty years old." The fact is he should never have found it out through any trouble with that organ, and never would have known it had he treated it with proper regard.

The same is true of the liver and the kidneys, the heart, and all the internal organs. They are not worn on the outside where they are brought into prominent notice; they are covered up deeply in the inner recesses of the body, out of the way of harm and out of notice. There they patiently and faithfully perform their work when allowed to do so, and will even endure much abuse and indignity, rallying from each attack of indiscretion and each assault upon their legitimate work, but at last they must protest, they can no longer keep silent over their repeated wrongs, and very likely they struggle along until they actually have to "throw up the job." Lucky for us if it be not the heart or some organ upon the constant action of which we depend for life.

Generally these break-downs are preceded by a set of premonitory symptoms. There are warning sensations of pain, and signs of

weakness. In such cases the majority of people suffer the symptoms for a while until they become intolerable, then go to a doctor to get "something for my headache," or "something to take for my stomach," the aim and object being to silence the symptoms. And those so-called remedies that require "no change of diet" are especially popular. No interference with the wretched ways of living are wanted. The old habits are so strongly entrenched in the life that they must remain, even almost at the cost of life itself. Some palliative or anodyne is administered, the symptom disappears, and the man imagines he is "cured." But the trouble all remains. The poor diseased organ is not relieved, the pain is covered up by an opiate, the work of destruction goes on, and the evil day is postponed but not averted.

Now, the rational way to deal with the situation, as all will perceive, would be first to go down below the outward symptoms and reach the real trouble. Disturbances do not always have their origin in the regions where they are manifested. Headaches seldom originate in the head. Heart disturbances may have no relation to the heart itself. First, then, discover the seat of the disturbance. This frequently can be done only by a careful, painstaking and scientific examination of the various parts of the body. Having located the disease, inquire as to the cause. Remove the cause, whatever it may be. Let pernicious habits go. Reform the life, and thus relieve the burdens imposed upon the weak and failing organs. Then comes the work of restoration or building up the broken-down parts. The vitality inherent in the body is the only power in existence that can restore or heal. Under normal conditions the body possesses the necessary power to recover its losses and repair its damages within certain limits. The sole dependence of the physician in effecting a cure of his patients is this vital or life-giving power, a divine principle that resides in the body.

This vital principle must be supplied with such resources as are necessary for its work. A carpenter can not build a house without material, nor can the body be maintained and built up without material. These resources are pure air, pure water, good food. It is the part of natural medicine to supply these. Medicine also has a work to do in removing abnormal conditions and assisting in the restoration of the vital processes. This can be done by supplying nutrition and applying natural stimulants in heat and cold and exercise. Electrical energy is also a means of bringing the natural processes into operation.

It is in such a field as this that the Battle Creek Sanitarium seeks to operate, and the wisdom of such a work must commend itself to all thoughtful persons. Progress made under such a regime is permanent and real.

HOW DISEASE IS DIAGNOSED

PROBABLY the most interesting place about the Sanitarium is the laboratories located in the College building on the west side of the street. Here the patients are examined and analyzed without their being present or knowing anything about it. In law it is not allowed to investigate a man for crime except in his presence; in medicine it is often convenient and preferable to have the object of examination as absent as possible. In a surgical operation the patient has to be put out of existence temporarily in order most effectually to get rid of him. So in diagnosing, the interference of the one principally interested would often be a hindrance rather than a help. A man's feelings and impressions are frequently very misleading, and are not safe guides in getting at the real nature of his troubles.

Speaking of these laboratories, one of the Sanitarium physicians said to his patients the other day: "In the laboratories where these researches are being carried on, you have been inspected and an inventory taken of what is going on in your body, and of the metabolic processes. It is there that we get the information that enables us to know what to do for you. When I take a set of records brought to me from the laboratories concerning the blood, the urinary secretions, and the other secretions and excretions, the coefficients, the blood-pressure, the stomach analysis, and other particulars obtained by an actual scientific process, and look over that record, I do not need to see the patient at all. I have no need to question him as to his feelings and symptoms; I have a positive picture of the person's condition before me. I know at once whether the patient is fleshy or spare and thin, whether he is anemic or plethoric—I know a good deal more about that patient than I could know by simply sitting and asking him questions. These investigations show beyond any query just the actual condition the person is in without my asking him a question. And the knowledge I gain in this way is much more reliable and exact than that which the patient could give me.

"People are often mistaken in their diagnoses of their own cases. Doctors are liable to make mistakes when they depend upon symptoms alone for their opinion of a diseased condition. I met a gentleman just a few hours ago who was quite mistaken about his case. He seemed quite worried over the

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prospect and said, 'Doctor, do you think I can recover? I have such a bad, sour stomach, my case seems to be a very serious one.'

"I replied to him, 'My friend, I am happy to tell you that you are a very fortunate man. You ought to be thankful that we can make so favorable a diagnosis in your case. What a splendid thing it is to have a stomach that can make more gastric juice than is needed! There are many people who would give almost any sum to have your stomach. Their stomachs are bankrupt, but yours has a large surplus. There are plenty of people who would be perfectly happy if they could only have sour stomach once. Now all we have to do in your case is to put the brakes on a little.'

"It happened that in this man's case we had made an examination in time so that I could make this statement to him when he needed it. We knew just exactly what the condition of his stomach was and could make a definite and reliable statement to him. We knew there was no trouble with the kidneys, or with the liver, no trouble with his heart, his blood was all right, his nerves were in good condition, and his blood-vessels were in good shape; it was only necessary to regulate the speed of his stomach a little, and he is well again. We could not have known all this but for our system of laboratory research. I was glad to see a smile come over the man's face where there had been gloom and discouragement. I could speak to him confidently that he would soon get well, and it is as sure as that the sun shines.

"Had I been obliged to accept the man's verdict of his own case it would have been hopeless from the start. But I paid no attention to what he told me. It made no difference with my judgment of his case to have him go over his dismal forebodings, or tell the story of his symptoms; I cared nothing for these, I simply looked at the laboratory records, and there was the whole story in unmistakable figures. It did not make any difference what he thought or what his feelings were, we knew exactly what the matter was and we knew exactly what to do to bring about a cure.

"This case to which I have referred is but an illustration of every other case that comes to us. The laboratories leave us in no doubt as to the exact conditions that we have to deal with and as to what the measures are that should be taken."

Among the recent arrivals at the Sanitarium we have Mr. W. H. Rodgers, a prominent newspaper man of Warsaw, Ill.; Mr. A. H. Lewis, manager of the Rochester Germicide Company; J. E. Tripp, Esq., who is prominently connected with the Nineteenth Century Washing Machine Company; W. D. Spurrier, a leading attorney of Des Moines, Ia.; J. H. Kindal, of Auburndale, Mass., a prominent boiler manufacturer; J. E. Mills, special traveling correspondent for the *Interior*, Chicago; Mr. and Mrs. A. G. Bedell, of Pine Bluff, Ark.; Mrs. Chas. M. Way and Mrs. J. Houghtaling, of Minneapolis; Mrs. G. T. Fair and child, and Mrs. Sally Ruffner, of Charleston, W. Va.; Mr. Hugh Tracy, Esq., of New York, manager of the Home Insurance Company.



WINTER VEGETABLES IN THE SANITARIUM GREENHOUSE

The Sanitarium W. C. T. U. held its regular meeting in the Sanitarium parlor on Sunday afternoon. The principal address was given by Dr. Julius Soper, missionary from Japan. The address was particularly interesting, showing how the temperance reformation had been used in Japan to introduce Christianity. The Japanese are addicted to the use of a native drink made from rice and called "sake." A boy is not supposed to have attained manhood until he can drink a large bowl of this distilled beverage without becoming intoxicated. There was a universal hatred against Christianity on the part of the Japanese, and through the temperance reformation the missionaries have succeeded in bringing both together.

PURVEYING THE SANITARIUM

(Continued from page three)

The above items will give the reader an opinion as to whether there is any real danger of being "starved to death" during a sojourn at the Battle Creek Sanitarium. Two separate dining establishments are maintained. The first is the main dining-room on the sixth floor of the large building. The kitchen is also located on that floor, placing the cooking above and clear from the rest of the building. The other establishment is in the basement of East Hall, where nearly four hundred helpers are fed three times a day, and where many of the guests also eat.

Battle Creek Sanitarium Periodicals

Three journals are published at the Battle Creek Sanitarium:

The Battle Creek Idea (Weekly)	\$1.00 per year
Good Health (Monthly)	1.50 " "
The Medical Missionary (Monthly)50 " "

These papers will be combined at the following prices:

Battle Creek Idea and Good Health	\$1.85 per year
Battle Creek Idea and Medical Missionary	1.20 " "
Good Health and Medical Missionary	1.35 " "
All three journals one year	2.10 " "

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THE COLD BATH;

(Continued from page one)

ways intelligently. The skin, as you know, is filled with nerves. One can not prick any part of one's skin with a needle point without piercing the end of a nerve fiber. We have nerves for feeling heat and cold, and these nerves all come to an end in the skin, and there are millions of nerves in our skin. These nerves are put there to be stimulated by forces outside of the body, and while our lives are dependent upon food and air and water, that is, as far as physical sustenance goes, we are also dependent to a large extent upon forces outside of our bodies, upon heat and cold, and changes in the atmosphere, and these forces are being reflected in the skin all the time, and these are the forces that keep our bodies in motion.

STIMULATION NECESSARY

In other words, we must have something acting upon our bodies to keep them stimulated, and the thing that acts upon us is these natural forces outside of ourselves. This is a very important consideration, it is fundamental, and it is a principle that we make use of here when you take the cold baths. We stimulate the body through the nerves by using forces on the outside. These nerves in the skin are some of them stimulated by heat, others by cold, others by mechanical movements, others by sunlight, and others by electricity. When the nerves are stimulated, they send over the spinal cord millions of nerve impressions. You all remember the sensation when you took the cold shower; it was with difficulty you got your breath. The reason for this is that the stimulation on your skin is so great, the impressions that go out to the brain are so many and so strong, that they over-stimulate the respiratory centers. Many of you think it is strange that we should treat a man's stomach by putting cold water on the outside; or treat the man's heart or liver by putting hot or cold water on the outside; and it is a very proper question to ask how it is done.

But, coming back to our cold bath,—we stimulate a man's nerves with the cold bath and send into his brain millions of nerve impressions that stimulate the various centers—respiratory center, heart centers, centers of every other organ, and so impressions are sent out from these centers that bring about changes in the action of the heart, changes in the action of the muscles, changes in respiration, changes in the function of the stomach and all the different organs. This is what we call reflex action. By stimulating the nerves on the outside of the body, we send impressions into the nervous system and in that way we change the action of the organs interested.

NOT THE WATER, BUT THE COLD

That is the way baths act. It is not the water that does the good, it is the cold and the heat in the water. We simply use the water for the heat or cold, that is all the good the water contains. You get very much the same effect when you go out of doors and take a walk in the cold air as in taking a cold bath. It is not the same, of course, but it is similar, and that is why cold air is tonic.

Many people run away from cold in the winter, but cold is not altogether our enemy.

Cold baths should be of short duration. I would call a bath that lasts from twenty seconds to two minutes a tonic bath, depending upon the condition. Usually, I think half a minute is long enough for a cold bath in the morning. Some may need less, others a little more. But in all cases the application should be short in order to have tonic effect. A short cold bath increases blood-pressure. A short cold bath increases the circulation of the blood, makes the blood stream flow more rapidly, and so improves the circulation. A short cold bath at first diminishes the amount of blood in the skin, but when we get the reaction, then the amount of blood in the skin is increased, and as the circulation is improved, the heart is thus toned up. A cold bath is one of the best things to maintain a healthy condition of the body. If a business man who sits in his office day by day should take a cold bath two or three times a day, particularly in the summer, it would take the place in a large degree of the needed exercise; it will keep up his health and will be time well invested. It pays one to look after his health, and a short cold bath taken in the morning and again at noon, and again at night, is certainly very healthful, particularly in the summer. A short cold bath increases the depth of respiration, and increases the intake of air in the lungs; it increases the amount of oxygen taken into the lungs and into the blood. A cold bath increases the number of blood cells. First, we get an immediate increase in the count, which is due to the increased circulation in the skin, simply by the blood coming to the outside. But besides that, where the cold bath is kept up for any length of time, the actual number of blood cells is increased, and that means that the cold bath is simply a blood-making measure. The cold bath increases oxidation. By oxidation we mean burning up of the waste material. We put coal in a furnace and the carbon in the coal unites with the oxygen in the air, causing combustion, and that is what we mean by oxidation. That same thing is going on in our bodies all the time. The fire does not burn as a fire in a furnace, but it produces heat, it is practically the same process that consumes the coal.

COLD BATH CREATES A PROTEST

One great trouble with many chronic invalids is that they lose the power of making heat. You hear of people suffering from cold hands and cold feet. This is the usual complaint of people who are thin in flesh.

The fire in their bodies is at a low ebb, their circulation is poor. They have lost to a large extent the power to make heat in the body, and this is a very important function in the maintenance of human life. For one who can not make heat fast enough, there is nothing better in the world to stimulate that function than the cold bath, and I have explained how it is. The cold bath of course abstracts heat from the body. The body recognizes that, and gets to work immediately and makes more heat. It is essential to keep the body temperature at an even temperature, that is a little above ninety-eight degrees, and when heat is taken away the body works to make more, and so the heat-making function of the body is stimulated by the cold bath. And this is brought about by increasing oxidation in the blood, so that for people who suffer with cold hands and cold feet and have little blood and poor circulation, very often the cold bath is one of the best things in the world. Of course it should be taken carefully and not in a way to produce a shock.

THE COLD BATH INCREASES THE APPETITE

It increases the secretion of hydrochloric acid in the stomach. It increases the strength of the muscular coats of the stomach and the intestine, and relieves constipation. For people who have deficient acid in the stomach the cold bath is one of the best things in the world. The cold bath increases the excretion of the kidneys and increases the output of urine. By a cold bath the tone of the muscle is increased and made stronger. A very interesting thing about the cold bath is its efficiency in increasing endurance.

The short cold bath does all these things. A prolonged cold bath is depressing and does not act as a tonic. The effect of a cold bath on the nervous system is to increase the irritability of the nerve fibers at first; if the bath is continued it is decreased very re-

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Among other special advantages offered are laboratory instruction in bacteriology and chemistry, the use of the microscope, urinary analysis, practical course in cookery and dietetics, medical gymnastics, swimming, anthropometry and open air methods.

Applicants received whenever vacancies. The next class will be organized the first of April, 1910. For full information address

Sanitarium,

Battle Creek, Mich.

markably. Put a man's arm in a cold bath and allow it to stay for ten or fifteen minutes, and test his nerves and the irritability is greatly diminished, though at first it increases. The real effect of a cold bath on the body depends upon different things. First of all, it depends upon the ability of the patient to react, so called. The cold bath brings into greater activity the vital forces inside the body, as I have described to you. It increases all the activities in the body by stimulating them through the nervous system. Primarily, cold is depressing. The body recognizes it as an intruder, as an enemy, and rallies all its forces and acts against it; and this rallying is the thing that increases the activity of the body. The effect of the cold bath depends upon the vital coefficients of the individual. The effect depends upon the temperature of the body, and upon the time the bath is applied. Much depends upon the amount of surface to which it is applied. If we apply it to the whole body at once, the effect is greater than if we apply it gradually. In one case it is a sudden shock; in the other it is a gentle impression. In one case we stimulate millions of nerves at the same time; in the other case just a limited surface is involved, and so the stimulation is not so great.

The water may be applied in many different ways. The simplest way is to use the hand and give the patient what we call a wet hand rub. We can use a towel, or a friction mitten, or a shower bath, or plunge. We may apply it in a gentle way, or in a severer way, depending upon the amount of stimulation which is required. A cold bath taken when the body is cold will never do any good, it simply depresses the body more. Never take a cold bath when you are chilled. If one is tired and exhausted, the body can not react so well to the cold, so it is not a good plan to take a cold bath when tired. When one gets up out of a warm bed in the morning, he is rested and in good condition to react from the cold, and this is a good time to take a cold bath. In taking a cold bath, particularly in winter, it is better to have the room warm.

It is reported that several thousand men in Cleveland have handed together to abstain from the use of meat until the price has been reduced. There is some justification for such a lock-out as that. It need not be directed at the butcher and meat vendor in a spiteful spirit, but entered upon as a purely economical measure to lessen expenses and also as a sanitary measure to preserve health and conserve strength. The use of flesh for food may well be discontinued in these times of high prices, and indeed in every other time. The step would be a long one in economy and would enable the housewife to provide much more of healthful, wholesome food of other kinds.

Be sure to hear the Olivet College Glee Club which sings in the Sanitarium gymnasium on Saturday evening, the 22d. The company consists of twenty-four trained young men singers under a competent director. General admission will be twenty-five cents. Reserved seats, thirty-five cents. Concert opens at eight o'clock.

ARRIVALS

THE following are the arrivals at the Sanitarium for the week ending Jan. 16: Miss Della Johnson, Cincinnati; F. F. Morse, Lansing; Mary Mather, Lansing; J. A. Ruddy, Mich.; M. F. Ruddy, Mich.; Leo Stowe, Mich.; Caleb Eldred, Mich.; Mrs. John B. Rieg, Kalamazoo; Mrs. E. W. D. Golway, Minneapolis; H. W. Showerman, Mich.; Daniel Ross, Detroit; G. A. Coggan, Mich.; Mrs. J. W. Walton, Ill.; Mrs. John W. Walton, Ill.; Miss Eva Mary Budd, Toronto; Wm. P. Carpenter and wife, Cincinnati; E. Myers, Wheeling; V. V. Collins, Chicago; L. Lewis Bear, City; W. I. Boreman, Mich.; Mrs. A. C. Loomis, Mich.; Mrs. E. P. Phillips, Ill.; Miss Janet Gillies, Ill.; Mr. and Mrs. John Smith, Detroit; G. O. Elbert, wife and baby, Detroit; Rev. L. C. Randolph, N. Y.; Fred C. Zabee, Manitoba; John Heumeter, Detroit; L. H. Gibbs, Mich.; W. F. Lockhart, Ohio; P. H. Folliard, Ill.; A. G. Beasley, Ind.; James R. Marlow and wife, Chicago; Sol. Freehling, Chicago; W. F. Seymour, M. D., China; Mrs. A. G. Bedell, Pine Bluff; Daniel Ross, Detroit; Mr. and Mrs. John W. Hubbard, Pittsburg; E. W. Whitfield, New York; Jos. S. Johnson, New York; Mrs. John S. Barker, Ind.; Miss Julia Fogarty, Michigan City; Horace C. Klein, St. Paul; Katie Williams, Daleway; Mrs. D. G. Lindenburg and Miss C. Lindenburg, Columbus; Miss Anna Finn, Columbus; Mrs. Geo. R. Israel, City; S. F. Bloom, Chicago; Karl M. Newman and Mrs. K. M. Newman, Ind.; Dr. Carlos Rozella, Ind.; L. T. Ware, New York; A. H. Lewis, Cleveland; Mrs. H. S. Campbell, Ohio; H. S. Rodgers, Denver; O. D. Kinney, Athens, Pa.; J. E. Tripp, Indianapolis; A. Etna Hancock, Ky.; Mr. and Mrs. C. D. Gregg, St. Louis; Mrs. D. W. Valentine, Kalamazoo; A. D. Savage, Ill.; W. A. Spurier, Des Moines; Miss Julia Egan, Chicago; O. B. Sarter, Ohio; T. W. Rodgers, Ohio; Burr McMurray, Ohio; M. G. Newell, Duluth; Mrs. Chas. M. Way, Minneapolis; Mrs. J. Houghtaling, Minneapolis; Mr. and Mrs. M. H. Campbell, Pa.; Mr. and Mrs. M. H. Pearce, Minn.; E. D. Kirby, City; Mr. and Mrs. Wellman, Buffalo; C. P. Hawks, Pa.; Mrs. W. A. Radick, Mich.; J. B. Freshette, Mich.; W. C. Phillips, Mich.; Mr. and Mrs. A. B. Con-

nabb; Lulu C. Allen; W. S. Hunter, Chicago; Chas. M. Thather, Escanaba; Mrs. P. W. Rial, Atlanta; Mrs. Lillian Pearce, Mich.; Jos. G. Walter, Pittsburg; B. M. Tower, M. D., Ohio; Jas. H. Kendace, Mass.; Mrs. H. W. Stough, Ill.; J. R. Frank and wife, Ft. Wayne; Miss Emma Etzola, Ft. Wayne; K. W. Hannah, Chicago; Mrs. H. A. Rackliff, Mich.; H. S. Whiting, Mich.; Fred S. Maker, Colorado Springs; Verne Parks, Chicago; Mrs. R. N. Smith, Ind.; John Burns, Chicago; Mrs. John Burns, Chicago; Chas. Youngheim, Wichita; Mrs. C. J. Rabe, Mich.; Jos. Ziegler, Ind.; Jno. H. Masten, Mich.; A. McCoy, Ohio; Mrs. A. D. Daniels, Rhinelander, Wis.; Dr. J. S. Daniels, Rhinelander, Wis.; Miss Henninger, Ind.; R. E. Hart and wife, Mich.; I. M. Smith, Mich.; Miss Ruffner, Charleston, W. Va.; Mrs. Y. F. Thayer and child, Charleston, W. Va.; P. M. Rial, Atlanta; E. Lawrence, Ind.; T. D. Hauu, Pa.; L. R. Willard, Ia.; G. Barber and wife, Mich.; L. G. Addison, Ohio; J. Chapin, City; C. M. Addison, Columbus; Mrs. Abbott, Claude Chappell, Mich.; E. T. Eggleston, Kan.; R. S. Gilkeson, Detroit; J. E. Mills, Chicago.

News and Personals

Mrs. Daniels, wife of Dr. A. D. Daniels, of Rhinelander, Wis., and son, are guests at the Sanitarium.

Mrs. John H. Parker, of Michigan City, has returned to the Sanitarium, bringing with her a friend, Miss Julia Fogarty.

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**The Battle Creek Sanitarium School
of Health and Household Economics**

**BATTLE CREEK
MICHIGAN**

Mr. and Mrs. G. P. Elliot and daughter from Ohio are stopping at the Sanitarium and contemplate making their home in the city.

Dr. B. M. Tower, a physician of Conneaut, O., spent two days at the Sanitarium last week, visiting two of his patients, Mr. and Mrs. Stanley, of the same place.

Mrs. Susan D. Lindenburg and daughter have returned from their home in Columbus, O., and brought with them Miss Anna Finn, who will take treatment at the Sanitarium.

Mrs. F. O. Cunningham, of New Bedford, Mass., and Mrs. Henry M. Stough, of Oak Park, Ill., wives of the evangelists who are holding services in the city, are stopping with their husbands at the Sanitarium.

Hon. O. D. Kinney, formerly of Duluth, now of Athens, Pa., prominent in mining circles, is stopping at the Sanitarium. He is a warm friend of the institution and is visiting his niece and nephew, who are patients at the Sanitarium.

Misses Ella Thompson and Ruth Tenney, the former from the nurses' department, the latter a teacher in the Sanitarium Domestic Science School, have gone to Minneapolis to engage in health school work. The first reports show an encouraging prospect for a good work.

Dr. W. F. Seymour, a medical missionary of Teng Chow, Northeast China, under the Presbyterian Board, visited at the Sanitarium two days last week. He spoke to the medical students, and investigated the principles of the Sanitarium. He stated his high appreciation of the same.

Mrs. M. S. Foy, superintendent of nurses and the Nurses' Training School, has returned from a three weeks' visit to her sister, Dr. Minnie Staines, Manitou, Colorado. She reports an enjoyable visit and that her sister has been fully restored to health. The winter in Colorado is exceptionally severe, the snow deep, and the cold is rather intense.

The approaching American Medical Missionary Conference to be held at the Sanitarium Feb. 15, 16, 17, promises to be a decided success. Many favorable replies have been received from the invitations that have been sent out to speakers and missionaries to all parts of the world. The three-day program will be replete with subjects of interest and importance.

Last Sabbath was a day of exceptional interest at the Sanitarium. In the forenoon Mr. Henry M. Stough gave an interesting and effective discourse on the subject, "The Seal of the Holy Spirit and Redemption of the Purchased Possession." In the afternoon Mr. D. S. Spooner conducted a song service in the Sanitarium parlor. He was assisted by a large chorus from the Sanitarium and city. Both were well attended and enjoyable.

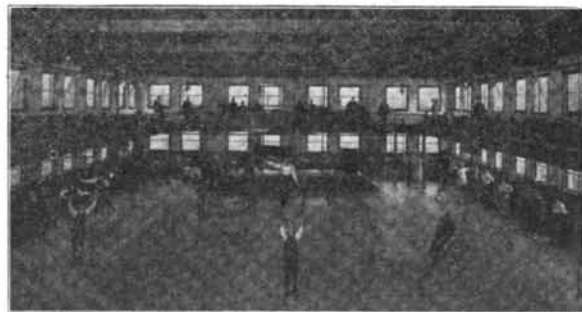
The Missionary Rally in East Hall parlor was one of unusual interest Sunday last. The address was given by Rev. L. O. Lee, D. D., a missionary under the American Board at Marash, Asiatic Turkey. He gave an interesting account of missionary accomplishments in that country and graphic allusions to the recent massacre. Dr. Lee has but recently returned from his field of labor, and was not in good health, but we are glad to see him much improved in health and strength.

An International Congress of Medicine and Hygiene will meet in the city of Buenos Aires, beginning on May 25th of this year. The congress is to consist of addresses and papers on subjects relating to the practice of medicine, and an exhibit of medical devices and apparatus. The papers will relate to Medicine, Pharmacy, Chemistry, Industry, Veterinary Medicine, Engineering and Architecture. The Secretary for the United States is Dr. Alfred R. Allen, 111 S. 21st St., Philadelphia.

The Olivet College Glee Club is booked for a concert in the Sanitarium gymnasium on Saturday evening, Jan. 22. The company consists of twenty-four young gentlemen, under a competent director. This promises to be one of the best and most delightful entertainments of the season. The admission is placed at the popular figure of twenty-five cents, with ten cents extra for reserved seats. It is hoped that the young men will receive a hearty welcome and a good hearing. Remember, Saturday evening, Jan. 22.

Battle Creek Sanitarium School of Physical Education

A GREAT OPPORTUNITY FOR YOUNG MEN AND WOMEN. Expenses may be largely paid in work. Gymnastics—German and Swedish; Dietetics; Massage; Hydrotherapy; What to do in Accidents, Emergencies and Common Maladies; Medical Gymnastics. Anatomy and Physiology; Chemical and Anatomical Laboratory work; Large Indoor and Outdoor Gymnasium and Swimming Pools.



Large Faculty of able teachers and trainers. Course one year. Tuition full year, \$85.00; Board and Room, \$3.00 to \$3.50. A number of students may pay their way in work.

Mr. Horace Fletcher will give a course of lectures on vital economics, and Mr. John F. Stapleton, formerly of the Yale Gymnasium, a special course on theory and practice of Swedish gymnastics.

The next regular term (new class beginning) opens January 3, 1910.

Any who are interested will be sent illustrated announcement with further details on request. Address:

The Battle Creek Sanitarium School of Physical Education
BATTLE CREEK, - - - MICHIGAN

THE BATTLE CREEK IDEA



Vol. III No. 8

BATTLE CREEK, MICH., JANUARY 28, 1910

Price 2 Cents

SANITARIUM DIET; WHAT IT IS

**Sanitarium Guests Are Not Starved, but
Are Fed Upon the Finest and
Best of Food**

PEOPLE who come to the Sanitarium for the first time are very frequently heard to express their surprise at what they find on the Sanitarium tables. It is not uncommon
(Continued on page three)

The Ethics of Flesh Eating

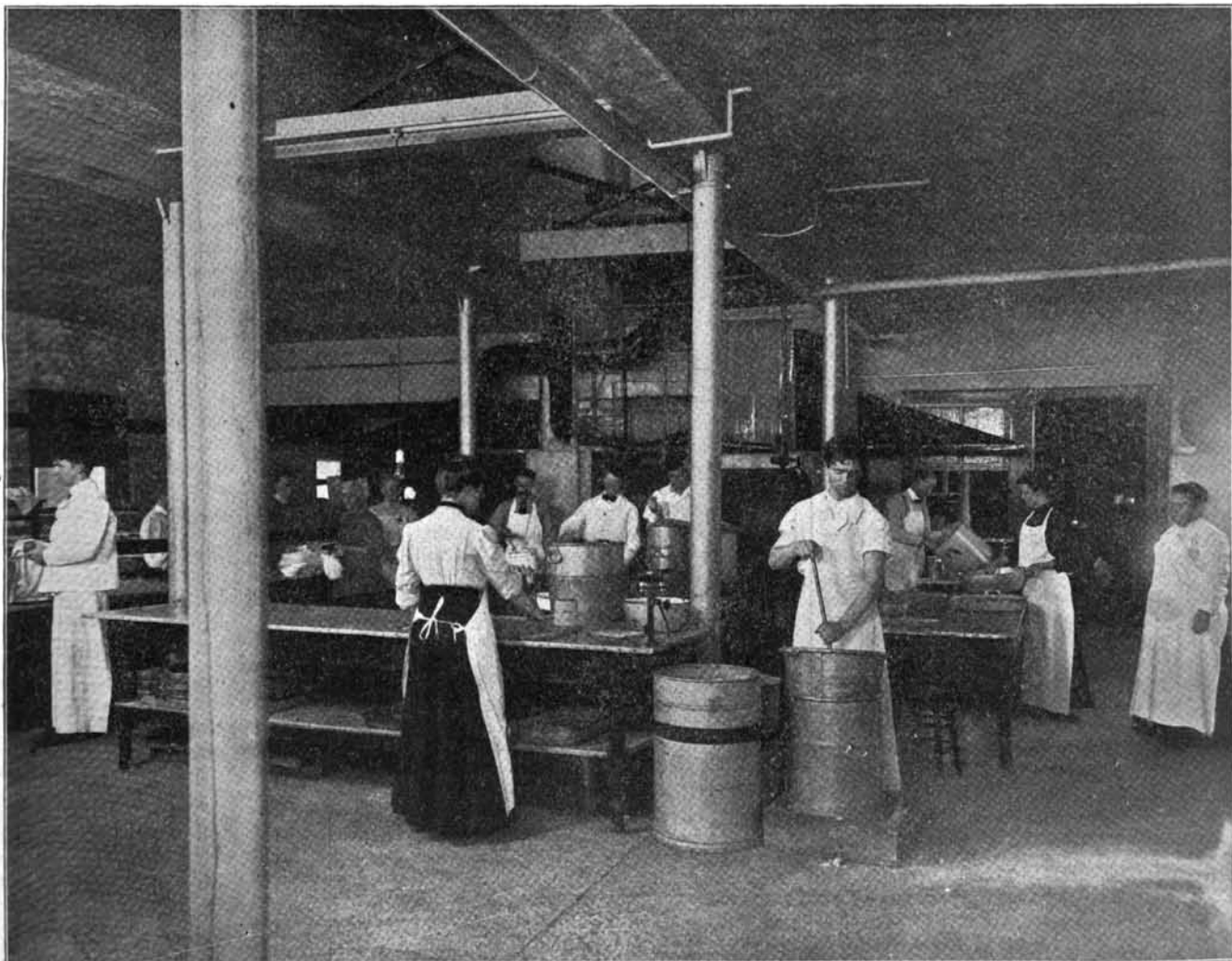
**Cogent Reasons Why We Should Not De-
vour Our Fellow Creatures — The
Horrors of the Slaughter-Pen**

THE basis for the ethical argument against flesh eating is to be found in the fact that lower animals are, in common with man, sentient creatures. We have somehow become
(Continued on page five)

WHAT ABOUT PSYCHOTHERAPY?

**Healing by Suggestive Mental and Absent
Treatment, and Christian Science,
Reviewed by Dr. J. H. Kellogg**

THERE is great virtue in psychotherapeutics; there is no question about that. Under many conditions a man can make himself sick, or make himself well through the influence of his mind. The story is told of a man



THE SANITARIUM KITCHEN

who heard the cholera was coming. He procured some cholera medicine, and had his wife place it on the stand, close by the bed, so that should he have an attack of cholera in the night, he could get access to it quickly. He felt a pain in his stomach in the middle of the night, and he shook his wife and said, "I have got it; it has struck me; give me the cholera medicine, quick." She reached out and got the bottle, and he immediately, without stopping to get a light, took a big draft out of the bottle, felt better, and went right off to sleep. The next morning you can imagine how he and his wife both felt when they found he had gotten the ink bottle instead of the cholera medicine; but it cured him just the same. All of you have heard of two men stopping at a hotel down East. One of them awoke in the night with an attack of asthma. He was subject to these attacks, and begged his friend to open a window or he should smother to death. So his friend found the window, but he could not get it up; and the man who was gasping for breath shouted to him to break out a light. So he broke out a light of glass, and the man felt better, but not quite relieved. He begged his friend to break out another; then he was quite relieved and went to sleep. The next morning they were astonished to discover that they had broken a bookcase; yet he was quite relieved. I can imagine that is a true story. And these simple stories illustrate a potent and significant truth. We are all more or less the

VICTIMS OF OUR FEELINGS,

of our nerves, and of our imaginations. And this imagination has a powerful influence in working for good or for ill. I remember just at this moment a man who came here over thirty years ago, far gone with consumption. He was a poor clergyman and came here in a very emaciated state; and I said to him, "I am afraid you are pretty sick, my friend; I doubt whether we can help you." "Well," he said, "never mind, never mind; I have come here to get well." The next morning I told his wife we could not cure him at all, and she must take him home right away. He came around to me the next day and said, "Look here, Doctor, what have you been saying to my wife? You are not to talk in that kind of way to her. My wife has all she can stand now. I want you to just simply give me a chance. I came here to get well, and I am going to get well, and I am not going home; I am not going to permit you to drive me off, for I came here to get well, and I am going to stay right here, and I am going to get well." That man got well in spite of me. He said, "You just tell me what to do; that is all I want of you." I said to him, "Stand up straight and get your chest out, and take deep breaths." I showed him how to breathe; he was very round shouldered; so he set himself up, got a cane and put it in front of his elbows behind his back, pinioned himself, and he walked around that way all day long. You could see that man walking up and down the sidewalk, marching like a soldier, hour after hour; and in three months he was another man. He went home, and for years I used to hear from him, and he always signed himself, "George Tompkins, E. C." (ex-con-

sumptive). It was the man's grit that cured him.

The reason why psychotherapeutics, Christian Science, and these other suggestive methods are as successful as they are is because such a large number of people are not really so very sick, but they have surrendered, just simply lain down and allowed disease to trample them under foot. When those people are persuaded to arise and assert themselves, to say, "I will be well; I will not surrender to disease; I will not submit to this thing," it changes the whole aspect of the case. It sets the will at work on the healing side instead of being at work on the side of disease. Yet, it

SOMETIMES DOES HARM

as well as good. As a whole, the philosophy of Christian Science is the most ridiculous thing imaginable, though there are some good things in it. When Christian Science says God is our Father, that is a great truth, that we all can understand and appreciate, and everybody ought to know it; and many people who did not know it have been made to know it through Christian Science. When Christian Science says there is a great healing power abroad in the universe, that is true, too; but when Christian Science goes farther and says there is a great healing power and I have it, and I can work it at a dollar apiece, or five dollars apiece,—that is another thing altogether. There is this great healing power abroad in the universe, and that great healing power is just as free as the air or as the sunshine; you do not have to purchase or solicit it to get it to work. The Christian Scientist says, "If you want to get this healing power to work, you must pay me and I will sit down here and think at so much a think in your behalf; I will focus my powerful mind upon you, and it will heal you." That is all hocus-pocus. There is absolutely nothing in it. I have tested it in many different ways.

A PROPOSITION

I made a proposition to a Christian Science convention in Chicago some years ago: "You believe in absent treatment, and you say you are able to cure people by that means. In Chicago you have collected the forces of Christian Science. Now, suppose, while you are there, you do something that will demonstrate your power; and that will do much good at the same time. Without asking any questions, without making any charge, just cure the sick people in Chicago, and make a shining example to the whole world of what you can do. For there was a Healer whose disciples we profess to be, and he went about doing good, and it was said when he left the town of Capernaum, that 'he healed all their sick.' Now, while you are in Chicago, suppose you leave that kind of record behind. What a splendid thing it would be to demonstrate to the world the validity of your mission in that way." I did not get any favorable response to my proposal.

In my experience I have known many sick people to come here to whom we have been compelled to say, "We can do nothing for you; your case is hopeless," and Christian

Scientists would assume these cases with every assurance of success, and would begin operations, and in a short time the patient would be dead. I can not remember a single case in which the reverse has happened; but I remember very well a lady who came here, who had internal cancer, and was suffering terrible hemorrhages in consequence of it, and the Christian Scientists had been treating her for several weeks, and assuring her all the time that there was no such thing as disease; that it was impossible for her to have disease, because the disease did not exist.

This is the false philosophy of Christian Science. You think you have toothache. My friend, you are entirely in error about it; you can not have toothache, because there is no such thing as toothache; because toothache is a disease, and there can not be any such thing as disease. The good God made all things good; disease is evil, a good God could not make an evil thing; so there is no evil thing. So you see you have no toothache, and you have no tooth to ache; so it is impossible for you to have any toothache, for there is no such thing as a material tooth. A tooth is nothing but an idea, and your toothache is simply a morbid idea that has gotten possession of you, and all you have to do is to cast that idea out, and you will have no more trouble with that tooth. What I am saying is no ridicule of Christian Science; that is what they continually and positively preach.

There is another thing in Christian Science that I think is pernicious. It has not been very conspicuous, but if you have read the life of Mrs. Eddy and have noticed the things which have been going on in New York in relation to Mrs. Stetson recently, you have observed that this power of the mind is equally strong for good or for evil. They believe in absent treatment by a healer who is supposed to be possessed of a very strong mind, who can heal you by casting his thought in your direction through a sort of wireless method, thus exerting a healing influence upon you. But they believe also that they can do the very opposite; that this person with such a powerful mind can cast disease upon a person as well as to influence him for health.

WHAT IS THAT BUT WITCHCRAFT?

It is simply a modern form of witchcraft. I had a practical illustration of it not very long ago. A bright young man who had been working in this institution, caught me as I came into the door one morning. He was very urgent to see me right away. Taking him into my office, I learned that he was greatly agitated because a certain man was trying to kill his mother by strangulation. Upon inquiring into the case I found that in his mind as well as in his mother's mind this was being done through telepathy. The person who was doing the deed was a man, a resident of the city, who had never seen or spoken to the boy's mother, but she had received a telepathic message from him that he would strangle her as he had strangled two wives already. And in the night she frequently awoke just in time to save her life, for she would be choking and

strangled nearly to death. The poor boy was nearly frightened out of his senses. He believed that a man down town was telephoning strangulation to his mother in the night. I do not think he ever saw the man himself, and his mother never saw the man, only knew his name, but there was absolutely no association between the parties at all. The woman had been reading Christian Science literature, and she had it in her head that there was a means by which people could, by absent methods, do such things. It is a wonder that there could be found in an intelligent country like this, anybody who would support such a cult or professed philosophy; it is more than I can understand; but it is nevertheless true that many hundreds and thousands of people have been ensnared by it; and probably the reason why they are ensnared is because there are some things that are beautiful in it.

MISCHIEF

The Fatherhood, the universal love and sympathy of God, is a very attractive truth, but when we come to these other foolish and whimsical things, there is mischief. As to healing by suggestion, there is something in that, no doubt, but there is mischief in it, too. People can sometimes be wheedled out of their feelings. But suppose here is a man with a coated tongue, headache, and depression of spirits. You can talk him out of his depression and get him to feeling better and brighter; but he has that bad taste in his mouth just the same; you can not wheedle him out of that by any kind of suggestion; and you can not get rid of the coat on his tongue by any sort of suggestion. He must get rid of his autointoxication, or he will never stay cured. You may be able to cure him up by suggestion for a few months, or for a day or two; but you can not keep him cured, because his morbid state is the result, not of a bad state of mind, but of wrong habits of living, wrong eating and drinking, and wrong conditions of life; and the bad state of mind is one of the symptoms, one of the results of these wrong habits of life. To cure him, we must correct his habits, his habits of eating as well as his habits of thinking.

It is a very good thing to aid the sick man, to help him to brush away the clouds, to see the sunshine, and to help him to trust and have faith and hope and confidence in a great healing power that is open to him, working for him, and going to do everything that can be done for him; it is a splendid thing. But to take a man who has a cancer eating into his very vitals and tell that man, as the Christian Scientists do, "You have nothing the matter with you; you can not have such a thing as cancer;" then let that cancer go on until it destroys his life, should not be tolerated. The evil and the mischief in it is that the attention is directed away from the cause of sickness, and the patient is led to believe the disease is due to the pernicious influence of the mind, when nine-tenths of the time it is the other way; it is the pernicious influence of the body upon the brain and upon the mind that produces these morbid states. But, all of the attention is focused upon the mind, and

that is looked upon as the root of the evil, the cause of all disease; and then an enormous amount of mischief will be done.

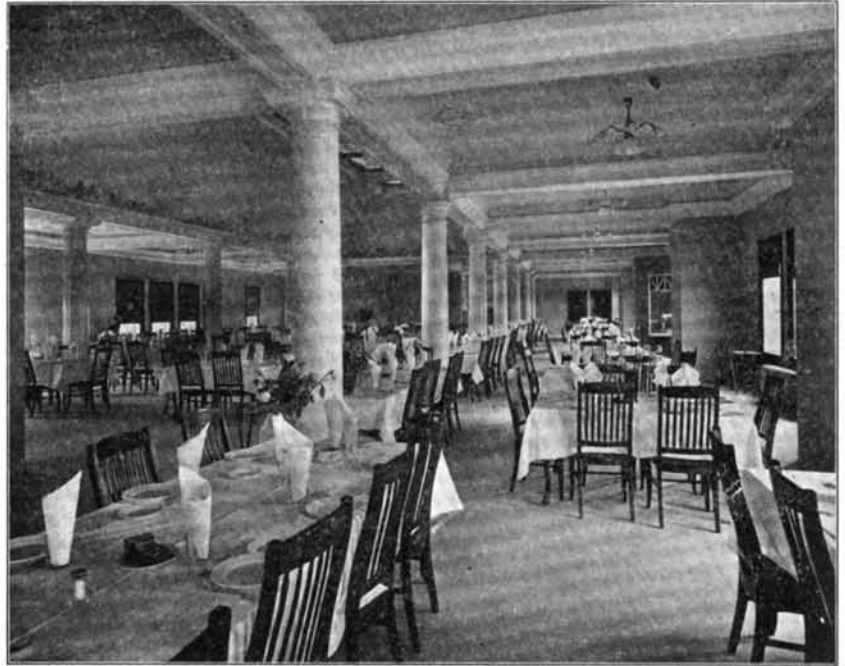
SANITARIUM DIET; WHAT IT IS

(Continued from page one)

to hear some remark like the following: "I had no idea that people at the Sanitarium lived so well; that one could be fed so bountifully on a vegetarian diet." It is a fact which we do not wish or need to advertise that there is more or less prevailing prejudice against the Sanitarium regime, a prejudice which arises wholly from misunderstanding and lack of knowledge. The diet system of the Battle Creek Sanitarium does not pro-

help to decide the utility of a food agent. Its adaptability to the wants of the system is the question to be settled.

It is upon such grounds as this that conditions in general, irritating stimulants, and all forms of flesh foods have been discarded, and have no place in the Sanitarium dietary. But these things are crowded out of the dietary by the preponderating abundance of that which is better and more wholesome. It is not so much a matter of forbidding people to eat that which is harmful, as of encouraging them to eat that which is better and more desirable. The blessings of good health, of renewed strength, of clear consciences, are held up as the inducements to adopt a diet which is in every way conducive to the well-being of the individual. Upon such a basis as this the bill of fare provided by the Bat-



A PORTION OF THE SANITARIUM DINING-ROOM

ceed upon a propaganda of negatives. It is not, "Thou shalt not eat this; and thou shalt not eat that," but rather upon the beatific proposition of "Blessed is the man that eats wisely and thoughtfully for health and happiness, and not for gluttony."

Many years ago the wise man of the Bible placed the following words upon record: "Blessed art thou, O Land, . . . when thy princes eat in due season, for strength and not for drunkenness." And it is still true that happiness, long life, good health and success depends upon a wise choice of the food we eat. The Sanitarium diet is not the expression of a whim or fad, but is the result of long continued scientific research and experimentation, and embodies the very best discoveries of medical and sanitary science. Every article upon the diet list is subject to the closest scrutiny and most careful examination as to its adaptability in nourishing and maintaining the system in the highest degree of efficiency. The question of financial economy does not enter into the matter, whether it is cheaper or more costly does not

the Battle Creek Sanitarium is affected willingly and gladly and there is almost an entire absence of the spirit of grumbling or finding fault.

In the first place, a great deal of pains is taken in the selection of the food. It is obtained under the direction of the medical superintendent by men who are intelligent and thoroughly in sympathy with the object in view, who make a careful and conscientious selection of the very best foods to be found in the market. They are then prepared for the table by skilled cooks who understand the art of healthful cookery and adapt their work to the end of restoring and guarding the health of the eaters. Food is prepared and presented upon the tables in a most attractive form, in a way to please the eye and the other senses. We present herewith two menus which are simply samples of the everyday fare to be found on the tables of the Sanitarium. A glance at these tables will show any one the falseness of the idea that the patrons of the Sanitarium are restricted or limited in what they have to eat:

(Continued on page six)

THE BATTLE CREEK IDEA

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VOL. III JANUARY 28, 1910 No. 8

THE COST OF LIVING

ONE of the most serious problems that has ever faced this country is that which confronts the people of ordinary means at the present day in the constantly soaring prices of the cost of the commodities of life. During the past decade the cost of living has increased in a way that is almost unprecedented, but as one comes to look for the underlying reason it is not easily discerned. The harvests have been bountiful, the sources of food supply have not been limited, but on the contrary have been continually expanding. Bread-stuffs of all kinds are being produced in heretofore unknown quantities; but in spite of all this, the necessities of life without exception are continually ascending the scale of prices. Wages have in most cases also increased, but not in proportion to the increased expenses involved in the maintaining of the household.

By very many people this state of things is attributed to the greed of combinations and trusts, and there is no room to doubt that to quite an extent this is true. The markets of our country are manipulated by a set of men who have no regard for the wants or the claims of the laboring people. By a species of gambling and underhanded trickery and trade, fictitious values are maintained on the necessities of life which are made the medium of a vicious speculation. There is, no doubt, abundant requirement for legislation upon this point. The law of supply and demand is the only one which should be allowed to control the prices of food and clothing, but the manipulations of speculators take the commodities of life entirely out of the field of legitimate trade. Then the various industries by which many of the necessities of life are produced are so combined as to be able to control prices to the consumer; and conscienceless men enrich themselves by despoiling the poor.

Recently there has sprung up in many parts of the country a practical protest against this sort of oppression in the form of a boycott on the consumption of flesh for food. Just what this movement will result in it would be hard to predict at this junct-

ure. Originating, as we understand, in an idle joke in a Cleveland restaurant, it rapidly gathered strength in that city and in an incredibly short time thousands of people had given their pledge not to partake of meat until the price should come down. Other cities caught the inspiration, and so the movement is spreading from center to center until hundreds of thousands of people are to-day refraining from the use of flesh for the purpose of reducing the price.

As an economic measure this movement is so sound and logical that it should be made perpetual instead of temporary. Most of those who venture upon it have done so for the period of one month. If people can profitably live without meat for one month, they can just as profitably live without it for twelve months.

Mother earth is the sole producer of food for mankind. It is only that which grows out of the earth that contains the elements of nutrition. To be sure, it is possible for one animal to obtain this nutrition first-hand, storing it up in its system, and for another animal to come along and devour the animal who took it first-hand; but from a glance this will be seen to be poor economy from every point of view. In the first place, it is considered that an acre of ground is required for the pasturage of a single grazing animal. That acre of ground would produce on an average eight hundred pounds of flour or two thousand pounds of cornmeal per year. It would feed a four-year-old steer one-half the time for four years, or until he got his growth and was ready for slaughter. In other words, it would take an acre of grazing ground eight years to raise 600 pounds of beef, and during this eight years the same ground would produce over three tons of flour or eight tons of cornmeal. It is computed that it requires four pounds of corn to produce one pound of pork. This corn, ground and prepared for human consumption, would go more than four times as far in nourishment if eaten by the individual at first-hand as it would if first consumed by the pig and then the pig eaten by the man.

In addition to these considerations, we have the fact that more strength, more endurance and more labor can be performed by the individual who lives upon vegetable products at first-hand than by the man who lives upon the animals who eat the vegetables, with greater immunity from sickness. The cost of meat is one of the most formidable bills which the householder has to face, and the suggestion of eliminating it from his bill of fare is one that commends itself to every sensible person who needs to consider life from its economic side. Certainly this is a favorable moment to inaugurate a permanent reform in the great question of diet.

OUR COMMUNITY IS SHOCKED

AND very properly, too, over the ruin of two beautiful girls, accomplished in the very heart of our good, moral, and enlightened city. Some people are mortified, and some are indignant over the awakening to the fact that we are harboring in our very municipal center certain dens of vice where innocence and beauty are ruthlessly sacrificed to lust, by human hipeds who have no more conscience over their nefarious business than has a hyena or an octopus. The fact that we have such dens is shocking enough, but it is a late hour at which to waken to the fact of their presence.

It is perhaps well enough to be indignant over such awful doings, but yellow heathens are no better nor worse than are white ones. These Chinese resorts have no reputation for moral or physical purity, they smell to heaven with their loathsomeness, and they are alike ruinous to souls and stomachs. And yet there is a glamor about them that makes them wonderfully attractive to youths of both sexes who have some of the adventurous spirit in them (and where is the boy or girl that has not?). But every sip of pleasure out of their depths is a draft from the nether regions.

The astonishing thing about it is that parents and guardians of children permit their charges to run at liberty among the low resorts of the town without watch or question. Our streets are thronged with girls out of school who should be required to go directly home and stay there instead of wandering about and approaching daily nearer and nearer to the edge of the precipice over which so many go at last, lost to all that is pure and respectable.

We are willing and desirous that those ghouls, yellow or white, who prey upon the innocence of youth should feel the full rigors of the law. We are even more solicitous that fathers and mothers should house and care for their own offspring and keep them out of the clutches of the destroyer. If a mother allows her child to wander so near the cage of the tiger or hyena that the paws of the beast reach it, the wild beast is not to be blamed; its character was well known to the mother, she should have protected her child. And here the case is much the same. If our boys and girls are drawn into the dens of those wild beasts of passion, it is generally because someone is false to the sacred trust of parenthood.

"Annie, where's papa?"
"He's upstairs, asleep."
"Were you upstairs, dear?"
"No, ma."
"Then how do you know he's asleep?"
"I heard him doing it. He's sleeping out loud."—*Illustrated Bits.*

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THE ETHICS OF FLESH EATING

(Continued from page one)

accustomed to think of our inferior brethren, the members of the lower orders of the animal kingdom, as things; we treat them as sticks or stones, as trees and other nonsentient things that are not possessed of organs of sense and feeling. We are wrong in this; they are not things, but *beings*. We forget the wonderful likeness that exists between us and the lower creatures. We neglect the fact that their brains are like our brains, their muscles like our muscles, their bones like our bones; that they digest as we digest; that they have hearts that beat as ours beat, nerves that thrill as ours thrill; that they possess to a wonderful degree the same capacities, the same appetites, and are subject to the same impulses as we. An ox, a sheep, can hear, see, feel, smell, taste, and even think, if not as well as man, at least to some degree after the same fashion. The lamb gamboling in the pastures enjoys life much the same as the little child chasing butterflies across the meadow. A horse or a cow can learn, remember, love, hate, mourn, rejoice, and suffer, as human beings do. Its sphere of life is certainly not so great as man's, but life is not the less real and not the less precious to it; and the fact that the quadruped has little is not a good and sufficient reason why the biped, who has much, should deprive his brother of the little that he hath. For the most part it must be said that the lower animals have adhered far more closely to the divine order established for them than has man.

The divine order, as clearly shown by nature as well as by revelation, and by the traditions of the ancient world, and illustrated by the present practice of a great part of the human race, makes the vegetable world the means of gathering and storing energy, and making it into forms usable by the sentient beings that compose the animal world, the one gathering and storing in order that the other may expend. When animal eats vegetable, there is no pain, no sorrow, no sadness, no robbery, no deprivation of happiness. No eyes forever shut to the sunlight they were made to see, no ears closed to the sweet melodies they were made to hear, no simple delights denied to the beings that God made to enjoy life,—the same life that he gave to his human children.

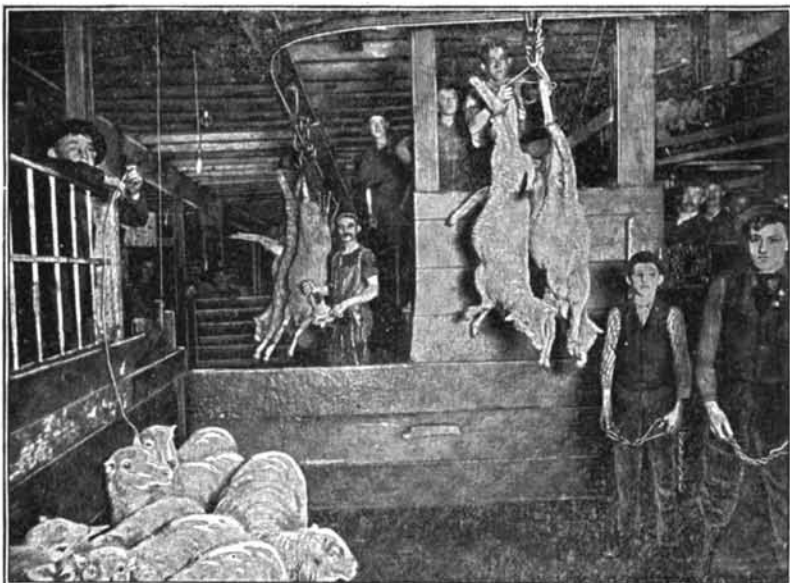
A lady artist once remarked to a friend, "How can you eat a thing that looks out of eyes?" The gentleman declared that from that moment whenever he sat down to a table where mutton was served, he saw a pair of gentle sheep's eyes peering at him, and was unable to touch his meat. Eyes imply a mind, an intelligence, something that has feeling and capacity for enjoyment, and that looks out upon the world, forms its opinions, its likes, its dislikes, enjoys, suffers, loves, hates,—experiences in which all creatures belonging to the animal kingdom are one. So there is, in a certain sense, not only a universal brotherhood of man,—although few recognize even this fact,—but there is likewise a greater brotherhood, which includes not only man, civilized man, savage man, Christian man, heathen man,—all men,

—but likewise man's humble relatives of the animal world, into whose nostrils as well as into man's God breathed the breath of life.

Man rears his cattle, his sheep, and his poultry much like household pets. His children make his lambs their playmates. Side by side his oxen toil with him in the field. In return for kindness, they give affection. What confidence they repose in him! how faithfully they serve! With winter's frost

and despair; the soil is wet with warm blood, and strewn with corpses.

The fact that our so-called Christian nations are behind many heathen nations in the estimation they put upon life as manifested in animals below man in the scale of being, is without doubt one of the greatest obstacles that has stood in the way of the advancement of Christianity in China, Japan, India, Burma, and kindred countries.



THE SLAUGHTER OF THE INNOCENTS

an evil day arrives,—a day of massacre, of perfidy, of bloodshed and butchery. With knife and ax he turns upon his trusted friends, the sheep that kissed his hand, the ox that plowed his field. The air is filled with shrieks and moans, with cries of terror

Let me ask you to peep into one of the great abattoirs of a large city. Unless you have already been accustomed to spectacles of gore such as are afforded by the town slaughter-house, or "butchering day" on the farm, you may perhaps be too shocked to

THE MEDICAL MISSIONARY

An Illustrated Monthly Magazine Devoted to the Interests of Home and Foreign Medical Missions

Contributions direct from all parts of the field represent the work of medical missions in various parts of the world as carried on by all denominations.

A Medical Department is conducted by J. H. Kellogg, M. D., Superintendent of the Battle Creek Sanitarium.

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These papers will be combined at the following prices:

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proceed before you have completed the tour of one of these stupendous slaughter-pens.

In the Union Stockyards of Chicago enormous wealth has constructed a machine for killing, the most expensive to be found in the world. As the *Cosmopolitan* says, "It is a region of order and death, but a sight that will stir the most casual onlooker or the deepest philosopher." And it does stir—it changes every man who lives in contact with it. The man whose soul is not so calloused that he has ceased to think humanely, and has lost sight of the great fatherhood of God, and the great kinship of all living, sentient things, must be stirred to feel that the slaughter-house, whether it be the wretched shanty just outside the limits of some country village, or the enormous structure filled with ingenious machinery of every description managed by a great packing company, is simply a place where organized killing—premeditated, systematic taking of life—is carried on.

We should doubtless regard these gigantic cruelties as closely akin to murder had we not been long accustomed to look upon animals as mere things, like blocks and stones, rather than creatures in whose veins runs blood like our own, whose nerves thrill with sensations akin to those which we experience, who exhibit much the same traits as do human beings,—love, hate, envy, courage, timidity, forethought,—which plan and execute, which combine with others against a common foe, and loyally defend, even to the death, a friend or kin.

The accompanying cut presents a small section of the cattle pens in which the poor brutes are confined "in blissful ignorance of their fate." Here, we are told, there are often to be found from "forty to fifty thousand hogs, twenty thousand cattle, and five thousand sheep." Two hundred acres of yards are densely crowded with unoffending brutes, waiting to be slaughtered. As the writer of the articles referred to tells us, "hardly any sunrise sees in existence any part of all this life that on the previous morning bleated, squealed, and bellowed under the urging whip of the drover." Think of it! More than one hundred and fifty thousand lives snuffed out in one day!

Consider a moment, reader, how much blood is poured out in this slaughter. A calculation based upon very moderate figures shows that the amount of blood annually shed in the Chicago abattoirs alone is more than sufficient to float five great ocean steamships. What crime have these poor brutes committed that they should thus be executed? What law of God or man have they violated that they should thus prematurely die, that their blood should be poured out upon the soil as a fertilizer? Verily, the blood of multitudes of innocents cries from the ground.

The influence of the abattoir, of the common slaughter-house, is equally shown in the moral deterioration evident in the men whose lives are devoted to the slaughtering of innocent beasts. The ears of such men become deaf to the agonizing cry of the intelligent brute that suspects its fate. The spectacle of a living being pouring out its life-blood in

a gushing stream, loses its ghastliness; the sight of quivering flesh, of writhing entrails, loses its gruesomeness; life, that divine spark of infinite energy which animates all living things, and makes all sentient creatures kin,—this wonderful, mysterious, God-given life,—loses its sacredness. The hired assassin is almost always a butcher. The perpetrators of many of the most atrocious and cold-blooded crimes have been more frequently butchers than men of any other occupation. That a man is by trade a murderer of brutes—a butcher—is almost universally, in Christendom, regarded as a disqualification for service upon a jury in which the question of responsibility for human life is involved.

Red blood is a mark of kinship which as human beings we must recognize. The Bible declares the unity of animal life. "The Lord God formed man of the dust of the ground, and breathed into his nostrils the breath of life." Gen. 2:7. "And they went in unto Noah into the ark, two and two of all flesh, wherein is the breath of life." Gen. 7:15. There is a fraternity more comprehensive and more universal than the "brotherhood of man." Let us think and speak of the "brotherhood of being." Let us see in the ox a patient, industrious kinsman, worthy of respect. Let us see and recognize in the sheep a meek and docile fellow creature appealing to us for protection and admiration.

SANITARIUM DIET; WHAT IT IS

(Continued from page three)

BREAKFAST—SUNDAY, JANUARY 23, 1910

Oranges	Wheat Grits
Toasted Rice Flakes	Cream
Nut Steak—Gravy	Broiled Nuttolen
Baked Potatoes—Cream Sauce	
Sliced Potatoes in Cream	
Cream Toast	Grape Toast
Whole Wheat Bread	White Bread
Entire Graham Bread	
Breakfast Toast	
Toasted Granose Biscuit	
Toasted Rice Biscuit	Cream Biscuit
Nut Butter	Dairy Butter
Strawberry Sauce	Pear Sauce
Malt Honey	Gluten Gruel
Toasted Rice Meal Gruel	
Apple Juice	Caramel Cereal
Cream and Milk	Sanitas Cocoa
Hot Malted Nuts	Yogurt Buttermilk

DINNER—SUNDAY, JANUARY 23, 1910

Cream Tomato Soup	
Lima Bean Soup	Protose Fillet
Nuttolene—Hollandaise Sauce	

Apple Fritters	
Baked Potatoes—Creole Sauce	
Potato Loaf	Fresh Spinach
Creamed Corn	Potato Salad
Lettuce—Lemon	Whole Wheat Bread
	White Bread
Entire Graham Bread	Breakfast Toast
Toasted Granose Biscuit	
Toasted Rice Biscuit	Nut Buns
Nut Butter	Dairy Butter
Cranberry Sauce	Prune Sauce
Malt Honey	Apple Juice
Caramel Cereal	Grape Juice
Sanitas Cocoa	Cream and Milk
Hot Malted Nuts	Yogurt Buttermilk
Cream Cake	Malaga Grapes

Three meals per day are provided: breakfast from 7:40 to 9:00; dinner from 1:00 to 2:30; and supper from 6:00 to 7:00. Meals are furnished in the rooms of those who are unable to go to the dining-room. The dining-room and kitchen are located on the sixth floor, above the rest of the building, the outlook from the windows presenting a beautiful and inspiring view of the city and surrounding country. The dining-room with its extension is capable of seating five hundred people at once. The service is efficient. The waiters are quiet, well-trained young men and women, who do not expect any tips or rewards for their services. Guests are requested by posted notices not to practice this prevailing custom, as it is the sincere wish of the managers that all shall be treated equally well.

Professor Sims Woodhead writes: "Alcohol, far from being antagonistic to tuberculous disease, as was at one time supposed, is looked upon as one of the great predisposing factors in the production of both acute and chronic pulmonary tuberculosis, and it is generally accepted that in alcoholic patients tuberculosis is far more likely to assume an acute and generalized form than it is in the non-alcoholic patient."

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THE BATTLE CREEK SANITARIUM AND HOSPITAL TRAINING SCHOOL FOR NURSES, BATTLE CREEK, MICHIGAN

This institution offers a three years' course of instruction for women and two years for men. In addition to the usual subjects taught in hospital training schools, special attention is given to all branches of physiologic therapeutics, including hydrotherapy, radiotherapy, phototherapy, kinesotherapy, or manual Swedish movements, and massage.

Among other special advantages offered are laboratory instruction in bacteriology and chemistry, the use of the microscope, urinary analysis, practical course in cookery and dietetics, medical gymnastics, swimming, anthropometry and open air methods.

Applicants received whenever vacancies. The next class will be organized the first of April, 1910. For full information address

Sanitarium,

Battle Creek, Mich.

QUESTION BOX DEPARTMENT

EACH Monday evening Dr. Kellogg conducts a Question Box talk in the Sanitarium parlor, where all guests and patients are at liberty to submit questions relating to health and health topics.

Q. If senna leaves continue to have a good effect, is there any reason why their use should not be continued for a considerable length of time?

A. Yes, anything which acts as an irritant to the intestine is objectionable, and the more highly irritating, the more objectionable. That is the reason why mineral waters are objectionable. A few years ago it was quite a fashion with doctors to prescribe mineral waters of various sorts for their patients, and the medical journals were teeming with advertisements of mineral waters; but at the present time you can not read a work on the disorders of the stomach and the intestines by any standard author in which the use of laxative mineral waters particularly is not condemned in unstinted terms as a cause of hypopepsia or gastric or intestinal catarrh, and of various other difficulties. The introduction of a large quantity of alkaline substances, salts, chlorid of sodium, and other salts into the body habitually, day after day, is certain to result in mischief to the stomach and to the intestines, and the digestion will be ruined ultimately; and this same thing is true of all sorts of laxatives.

Did it ever occur to you that we have at least a thousand different remedies which will produce a laxative effect? And why have we so many? Because there is not a single one of them that is reliable and safe. If there was one single remedy that was thoroughly reliable and did not do harm, that would be the one; everybody would recommend it, and be satisfied with it, and we should not have 999 more.

The same thing is true of hypnotics. Every little while there is an advertisement in the medical journals of a new hypnotic, perfectly harmless, that will induce perfectly natural sleep without any of the unpleasant after-effects.

It is always untrue. You can depend upon it, any such statement is a falsehood. It can not be otherwise than a falsehood, because a hypnotic, a thing that makes a man sleep when he is not sleepy, that compels a man to go to sleep, is a club; any ruffian can put a man to sleep with a club. Hit him in the right place, and he will go to sleep and stay asleep for hours, and perhaps he might not awake again. It depends upon the dose, it depends upon how hard he is struck. And it is exactly so with every hypnotic that is known. There is not a single hypnotic that would not kill a man if he took a large enough dose.

Some very popular remedies are composed chiefly of senna leaves or some other of the old-fashioned laxatives. They all act by irritating the intestines and the stomach. Persons who take these vegetable laxatives are

very likely to suffer from sore stomach, from hyperacidity, because the drug irritates the stomach, and the irritation extends the whole length of the alimentary canal. There are cases in which the temporary use of a laxative is much to be preferred to the intestinal inactivity which requires the use of the laxative. When a person is suffering from intestinal autointoxication, the poison produced by the putrefaction in the intestine is infinitely worse than the effect of a laxative.

Q. What is diabetes?

A. Nobody knows what it is. The condition which is called diabetes is one in which sugar appears in the urine. The urine always contains a little sugar. The blood always contains sugar, about two parts in 1,000. If it increases in the blood to three or four parts in a thousand, then the blood will not tolerate that amount, and some of it will escape through the kidneys. The injury sustained to the blood-vessels and the tissues when so much sugar as that is in circulation is considerable; and it is the duty of the kidneys to take it out of the blood in order that the tissues may be protected from injury by this excess of sugar in the blood. This excess causes the blood-cells to shrivel up, and injures them. The sugar in the urine is a symptom merely; it is not a disease of the kidneys. It may be a disease of the liver. It is very likely to be disease of the pancreas, and sometimes due to disease of the central nervous system. My belief about it is that sugar in the urine which gives rise to the diagnosis of diabetes is due to a number of different conditions. It is a symptom which is present in a number of different diseases; and is not really in itself a disease, but like dropsy, is a symptom of disease, and may be due to different causes.

ARRIVALS

THE list of arrivals at the Battle Creek Sanitarium for the week ending January 23 is as follows: Chas. L. Tracy, Pa.; Mrs. L. H. Sackett, Ky.; Mr. and Mrs. W. McLaughlin, Cleveland; F. Manning, Pa.; Mary Westhaler, Ind.; Elma Bohn, Minn.; Corlis C. Daughaday and F. Daughaday,

Chicago; Fred E. Allen, St. Louis; Wm. W. Hastings, Mass.; Caroline Parsons, Kalamazoo; Mrs. J. P. Hemmeter, Detroit; R. Williams, Denver; J. E. Tinscher, Ill.; Wm. A. Ellis, Cleveland; Harvey Lutz and Ruben Schumaker, Ohio; W. L. Porter, wife and child, Iowa; W. F. Hemmeter, Mich.; Miss Waight, Kalamazoo; W. H. Bowman, Chicago; G. R. Trenelhard, Ill.; Mr. and Mrs. C. S. Cock, Ohio; Miles J. Watson, Ohio; A. M. Barrett, Mich.; W. B. Hall and Albert Hall, Ia.; Mrs. Warburton, City; Mr. and Mrs. H. Fligelman, Mont.; Winifred E. Richards, Detroit; Mrs. J. H. Downey, Ga.; J. M. Martin, N. C.; Miss Rilla Archer, Cleveland; E. L. Peek and E. Myers, Mich.; M. Norseth, Minn.; Mrs. Stafford, Burgis, Mich.; L. H. Bissell, Mr. and Mrs. W. P. Wellel, Ill.; Mrs. A. J. Josephson, Wis.; Chas. J. Gill, Mrs. Byrd Squire and Josephine Squire, Ind.; W. P. Tuttle, N. Dak.; Miss Alice Hubbard, City; Carl Critchett, Mich.; Joseph Rouch, N. D.; Jacob Fisher and H. Fisher, Ind.; Maria W. Conover and Virginia Parks, Detroit; E. M. Bryant, Columbus; Mrs. Robt. Ramsey, Mich.; Orrin S. Good, Spokane; Duncan C. Dusenberry and W. H. June, N. Y.; Mrs. W. S. Edwards and W. S. Edwards, Mich.; Mrs. K. H. Culp, Toledo; Joe P. Dunlap and wife, Tenn.; Mrs. M. Graybiel, Buffalo; H. B. Groves, Rochester; John D. Hamilton, Pa.; Mrs. H. Sutton, Ill.; Geo. W. Wilson, Mont.; H. T. Myers, Chicago; Hugh Mapleton, Liverpool; Miss Violet Smith, London; E. D. Vince, City; J. A. DeGruyter and wife, W. Va.; W. E. Stough and wife, O.; D. Shapero, N. Y.; H. V. Adams and wife, Des Moines; Mrs. W. S. Wood, Mich.; Mrs. Chapin, City; Mrs. M. Thatcher, Mich.;

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The Sanitarium has a first class washery and your clothes will receive special care at reasonable prices.

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TWO COURSES IN DOMESTIC SCIENCE

The One-Year Course, intended especially for Matrons and Housekeepers or for those who desire it for its educational value, includes General Cookery, Invalid Cookery, Institutional Cookery and Practice Cookery, Anatomy and Physiology, Household Chemistry, Home Nursing, Household Microscopy, Household Economics and Household Architecture, Sewing, Medical Dietetics, Theory, Table Service, Physical Culture, etc.

The Two-Year or professional course, intended especially for Dietitians, Lecturers, and Demonstrators, includes all the studies of the one-year course, and in addition Advanced Chemistry, Advanced Physiology, Sanitary Science, Bacteriology, and Hygiene, and Advanced English.

ONE SPECIAL FEATURE of this school is that students are given an opportunity to meet a large part of their expenses by work along lines which aid them in their studies.

The Battle Creek Sanitarium School of Health and Household Economics

BATTLE CREEK MICHIGAN

Mr. and Mrs. Perry Ione, Cleveland; Miss Buena V. Ellis, Cleveland; W. S. Firwell, Baltimore; Mrs. C. C. Fokone, Ill.; Robt. Ramsey, Mich.; W. D. Mollett, Ohio; W. W. Gwinn, W. Va.; Mrs. C. C. Creegan, N. Dak.; B. G. Stephenson, City; O. B. Potter, Buffalo; Mrs. D. W. Valentine, Kalamazoo; D. Chas. Murtha and H. B. Worrell, Philadelphia; Y. A. Geen and Emelly Geen, Dallas; W. F. Pope and child, Chicago; J. J. Fancher, Kans.; E. I. Hover, Detroit; I. Fruhling, Chicago; W. L. Read, Des Moines; D. Bruerham, Mich.; W. A. W. Taylor, Vancouver; Chas. Peterson, Tex.; James Lortore, Kans.

News and Personals

Mr. W. L. Porter and family, of Winter-set, Iowa, are stopping at the Sanitarium for a few weeks.

Miss Cora Armstrong, a graduate of the '09 class, has gone to New York City to take up post-graduate work in the Bellevue Hospital.

W. E. Stough and wife, of Bryan, Ohio, parents of Henry M. Stough, the evangelist, have been visiting the Sanitarium and their son.

Misses Hattie Hall and Ida Armitage, formerly Sanitarium nurses, but recently of LeMar, Colorado, are visiting among their friends here.

Mrs. A. J. Josephson, of Menomine, Wis., has returned to the Sanitarium for further rest and treatment.

We are pleased to have with us again Miss Caroline Parsons, of Kalamazoo. Miss Parsons has many friends and acquaintances in the Sanitarium and is always a welcome visitor.

Among the missionaries who have recently arrived at the Sanitarium we note the following: Rev. and Mrs. Northrup and daughter, of India; Rev. E. C. Davis, of India; Rev. Carl Critchett, of Korea.

The friends of Miss Mamie Welstead will be pleased to know that she has made a good recovery from her recent illness and is at present employed as stenographer by a musical company in Flint, Mich.

The West End Branch of the Battle Creek W. C. T. U. will hold their regular meeting Tuesday night, February 1st, at the home of Mrs. Finley, 31 Howland Street. An interesting program is promised, and all friends are welcome.

Dr. E. T. Aitchison, wife and son, of Galesburg, Ill., have been guests and patients at the Sanitarium for the past three weeks. They have now taken their departure for Oak Park, which will be their future residence, Doctor Aitchison having accepted the position of Secretary for the northern district of the Baptist Home Mission Society.

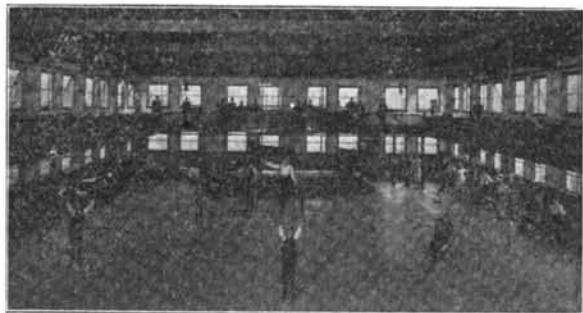
Miss Ida Lahey, a graduate nurse of the Sanitarium, whose home is in Brisbane, Queensland, has accepted a call to Fargo, N. Dak., where she will enter a small institution as head nurse. Miss Lahey carries with her the best wishes of all her associates, by whom she is highly esteemed. Miss Lahey expects to be absent one year.

The evangelistic services which have been in progress in this city since the 3d of January are still going forward, gaining in interest and power. They will continue through this week. They are under the charge of Dr. Henry M. Stough, of Oak Park, assisted by F. O. Cunningham, of New Bedford, with Messrs. L. D. Spooner and Arthur Herring as singers. These gentlemen have won a large place in the admiration of those who have become acquainted with them, and are doing a great work for the spiritual uplift of Battle Creek.

Mrs. C. C. Creegan, of Fargo, N. Dak., made her many friends of the Sanitarium a brief visit during the first part of the week. She brought her brother, Mr. B. G. Stephenson, from Chicago. Mr. Stephenson is a member of the Sophomore medical class. As a result of some dental work he became infected and was for some time critically ill, but through the best of medical care and kind attention he escaped with his life and is now well on the road to recovery. Mrs. Creegan was formerly a patient at the Sanitarium. Recently they have removed from New York to Fargo, where Doctor Creegan stands at the head of the Fargo College.

Battle Creek Sanitarium School of Physical Education

A GREAT OPPORTUNITY FOR YOUNG MEN AND WOMEN. Expenses may be largely paid in work. Gymnastics—German and Swedish; Dietetics; Massage; Hydrotherapy; What to do in Accidents, Emergencies and Common Maladies; Medical Gymnastics. Anatomy and Physiology; Chemical and Anatomical Laboratory work; Large Indoor and Outdoor Gymnasium and Swimming Pools.



Large Faculty of able teachers and trainers. Course one year. Tuition full year, \$85.00; Board and Room, \$3.00 to \$3.50. A number of students may pay their way in work.

Mr. Horace Fletcher will give a course of lectures on vital economics, and Mr. John F. Stapleton, formerly of the Yale Gymnasium, a special course on theory and practice of Swedish gymnastics.

The next regular term (new class beginning) opens January 3, 1910.

Any who are interested will be sent illustrated announcement with further details on request. Address:

The Battle Creek Sanitarium School of Physical Education
BATTLE CREEK, MICHIGAN

THE BATTLE CREEK IDEA

Vol. III No. 9

BATTLE CREEK, MICH., FEBRUARY 4, 1910

Price 2 Cents

The Sanitarium Not a Hotel

How a Homelike Atmosphere Is Created and Preserved—
Homesickness Barred Out by Kindness

No attempt has ever been made by its managers to place the Battle Creek Sanitarium before the public in the character of a hotel or a

pleasure resort. It is not carried on under the regulations which govern that class of resorts. On the contrary, it is conducted as far as possible on the plan of a home or residence, and every pains is taken to give it as homelike a character and appearance as is possible in so large an institution.

In the management there is no show of "bossism" or even of supervision. That is, there is no ordering about of waiters and servants, no harsh language or loud tones used in treating any of the employees. From first to last, from physician to call-boy, all are treated with courtesy, and the rights of every one are carefully respected. The work of the institution is carefully divided into various departments, and each department is in the hands of a competent supervisor, who is right on hand to attend to the affairs and to see that the work is well done. These heads of departments have been long associated with the work, and understand all the peculiarities of their situations, and they are interested managers rather than paid supervisors. The different departments are carefully adjusted to each other so as to leave no part of the work unattended to. There is in all the institution absolutely no jealousy or friction between departments; all are intent not solely upon the success of their own department but upon the work as a whole, and always consider their duties from that standpoint.

The consequence of all this is that there is no call for any display of arbitrary authority. The smoothness and harmony which marks the working of the various departments attracts the attention of all

(Continued on page four)

HOW TO WARD OFF INROADS OF OLD AGE

Poisons which Threaten Health and Life—Yogurt Defends Life
—Doctor Kellogg Tells How to Preserve Youth

NOAH, according to the Biblical account, lived to be nearly a thousand years old. And the people who live about the foot of Mt.

Ararat and throughout that region are the longest-lived people of the world to-day. A medical missionary who had been practicing in Mesopotamia for some time, told me that one day he was called to see an old lady who had pneumonia. She was very ill when he was called, and he asked her in his examination, "How old are you?" She said, "I am 126 years old." "Oh," he said, "you can not be so old as that." She quietly reached her hand under her pillow and brought out a little card, and said, "There is my card." And he looked at the card, and the card was a certificate from the priest of the church to which she belonged, stating that she was baptized at a certain date, and it showed that she was 126 years old. On another occasion he called at a house where there was a very old man, and he found that there were seven generations living under that roof. In answer to the missionary's query they said that the old gentleman was nearly 200 years old. He said that he did not think he was 200 years old, but it was very evident from his descendants, six generations after him, that he must have been between 140 and 150 years old. The missionary who told me this was a physician of intelligence, and a man of careful habits of observation, and I place reliance upon what he said.

Peter Czernak, a Hungarian, lived some three hundred years ago, and is reputed to have died at the age of 186 years, which was even older than Abraham. The fact that these people live to such a very great age has led to a great deal of interested inquiry as to the possible causes of this great longevity. Professor Metchnikoff, of Paris,



IN THE PALM GARDEN

Original from

UNIVERSITY OF MICHIGAN

has for the last twelve or fifteen years or longer, been making a very careful study of the subject of longevity. He has ready access to the Salpêtrière, a great hospital in Paris, a sort of poorhouse hospital, and they have there more than five thousand people, aged, infirm people, incurables, and some of them live to a most astonishing age. It has been his habit for many years to get hold of the subjects that were very old and study them carefully, and after death to make studies of their bodies to see what changes were common and characteristic of old age. He has had facilities likewise for the study of old animals from the zoological gardens of Paris. And he has taken a great deal of pains to purchase old animals and keep them under observation for years; and he finds that old age is the same whether it is in a donkey or a man; a monkey or a mule; a polyp or an eagle. Old age is simply the failure of the powers of the body to rebuild the tissues. So long as the rebuilding process goes on perfectly we live in the height of our vigor. The processes of breaking down and building up are going on all the time, but by and by the time comes when the rebuilding process is not effected perfectly, then we begin to decline, and the cause of this decline seems to be the accumulation in the body of ordinary tissue wastes.

In Stockholm, Sweden, they have a museum in which is a very remarkable collection of eyes. Many years ago some one made a discovery of a substance which had the power to preserve tissues of all kinds—animal and vegetable—in the same condition as in life. The tissues are naturally transparent.

While I was taking post-graduate studies in laboratories, the first time I ever looked at live tissue through the microscope—a bit of muscle from a frog—I could see nothing. I said to the professor, "Why, there is nothing here." And I had to wait until that tissue began to die before I could see it; for living tissue is transparent.

If you put your hand before an electric light you can see the light through it, especially where the tissues are the thinnest. If the light were strong enough, you could see that same red glow through the thickest part of the hand, or through any part of the body. In the museum of which I spoke there is the eye of a baby, clear as water. You have looked into a baby's eyes, and noticed how deep they seemed. Then there is the eye of a ten-year-old boy, and that is still very transparent, not quite so pellucid, however, as the baby's eye. Then there is an eye that is twenty years old, and that begins to show a little difference; it is by no means so transparent as the eye of an infant. Then there is the eye at thirty—still less transparent. The eye of forty begins to show distinct evidences of opacity; and then there is the eye of the old man of sixty or seventy, that becomes almost opaque.

What is true of the tissues of the eye is true of every tissue of the body. We can discover it in the eye readily, because the eye is so formed that it is clearly transparent; there are no blood-vessels running through it. While the muscles themselves are transparent, there are blood-vessels running through them and the blood presents opaque

objects, so that a muscle becomes red because of the blood in it. There is no blood in the lenses of the eye, so an opacity of its tissues shows readily.

The cause of this lessening of transparency is the accumulation of waste matters; it is the degeneration of the tissues. It is this process which by and by makes the arteries hard, producing arteriosclerosis and high blood-pressure. It is this change which produces wrinkles in the skin and destroys the roses on the cheeks; it is the deposit of these effete matters, waste matters, that destroys the transparency of the tissues and at the same time lowers the vitality. So long as we can keep the body clean, so long as we can keep the tissues clean, we can live, and this process of recuperation and renovation is continually going on and keeps us up on a high level of life; but when these poisons which are naturally formed in the body by our various activities begin to accumulate, when the kidneys cease to do the work of eliminating poisons as efficiently as they used to do; when the liver ceases to do its work of destroying poisons as efficiently as it once did, then the heart begins to weaken and fail, because of the poisons accumulating in its muscular structures; the lungs do not take in as much air as they formerly did, because the ribs are getting stiff and rigid, and they can not expand as freely as before; the blood becomes impure, the tissues become contaminated by poisons and the process goes on until old age comes. When we find these symptoms of old age, it means simply that our bodies have lost their transparency; that tissue wastes are beginning to accumulate. Just as long as we can keep these poisons down at a low point, so long as we can keep the tissues clean, old age has no power or command over us; old Father Time can be kept at bay; but when the poisons begin to accumulate, then down we go, and we sometimes go down very fast. There are three sources of poisons in the body which accumulate and destroy the vitality of the tissues and make us old. One source of poison is our ordinary work. When we think hard for a long time, the brain gets tired and by and by stops thinking because it is saturated with poisons. The activities of our bodies are akin to the activities of a machine or a locomotive that is pulling a train. The food is the fuel and the waste matters that are produced by some of them, the result of this burning. Those natural wastes the body easily eliminates. Carbonic acid gas, which is the principal one, is brought in the blood to the lungs, and is carried off with ease and rapidly, and apparently with very little injury to the body. And the urea which results from the burning up of the small amount of protein which we require is not large in quantity, and it is readily carried off through the kidneys; and the liver easily does its work of purifying the blood from the poisons that are formed within the body.

But there is another source of poisons—the poisons that we take in from the outside, that do not result from the natural burning of the food in the body—poisons that have been formed by another living creature, or a vegetable, and are taken by us as food.

For instance, when we eat animal flesh, we take into our bodies the poisons which that animal has made, the poisons which are circulating in that animal's blood. Beefsteak is made up of the animal tissue, and the waste matters circulating in the blood that did not get out but that were stored up. The tissue of a dead animal is completely saturated with these poisons, to the point of death; otherwise the tissue would not be dead, for it is finally killed by the accumulation of its own poisons in its tissues. Some of the blood runs out when the animal is killed, but pretty soon the heart stops beating, and there is left considerable blood in the tissues. Beefsteak is red because it has blood in it. Dr. Austin Flint, of New York, pointed out thirty years ago that the juices of meat are simply urine that has not been excreted. If, instead of allowing the kidneys to extract these fluids, you take the tissues and operate the lemon squeezer on them, it is the same thing; you squeeze the liquid out of it, and it is the liquid part which makes the urine. Suppose we wash our steak; it would be just as white as a sheet; it would be clean, too. But nobody would eat that; you couldn't make gravy out of it. Certainly not, because you have washed the dirt out of it, and the gravy is simply the dirt. When one eats meat he swallows these poisons. He has poisons just like them in his own tissues, and he adds those of another animal, and it makes too much.

Doctor Haig, of London, has been studying this matter and he found fourteen grains of uric acid in one pound of beefsteak. The body of a healthy man eliminates from its own production in twenty-four hours only six grains. As a matter of fact it is a little less than that when persons live on a proper kind of diet; but we will suppose it is six grains—six grains of uric acid. When a man eats two pounds of beef he has added twenty-eight grains more, which is more than four times as much as his body normally eliminates. In other words, the man is compelling his kidneys to do almost six times as much work as they ought to do. Those kidneys are going to be worn out pretty soon.

The majority of people think we are getting longer lived, that longevity is increasing because the average length of human life is increasing; but human longevity is not increasing; it is decreasing. I know that whereas thirty years ago one-half of all infants died before they were a year old, now half of them die only before they are five years old. But that goes to show very clearly that there was something wrong at the upper end, because things were improving wonderfully at the lower end. The mortality rate of children has, within the last thirty years, been diminished thirty-five per cent. The statistics gathered by the Massachusetts State Life Insurance Association have shown that within the last twenty years there has been a tremendous falling off in longevity after forty years. The depreciation between forty and fifty years amounts to thirty-five per cent increased mortality. And after fifty years the mortality increased twenty-two per cent; after sixty years it has increased thirty-five per cent. This is due to poisons, and part of these poisons are taken in from the outside.

One of the most dangerous sources of poisons is meat eating. There are some other poisons we take in—cafein of coffee and the thein of tea, which are practically the same thing as uric acid when it comes into the body. These poisons are an excretion of the plant. Here is a plant that excretes into its leaves poisonous matter that it has no use for, and the man comes along, gathers up those leaves, eats or drinks them, and it is exactly the same thing as though he had been collecting the excretion of the kidneys and swallowing it; it has the same effect upon the body. It is the excreta of the plant.

And there is another thing people do that is very much the same thing. There is a nasty little plant, a fungus, that grows away down near the bottom of the scale of life, called yeast. Yeast when it grows decomposes sugar; it takes sweet, delicious, wholesome sugar and decomposes it; it eats it up and excretes alcohol. And that alcohol is gathered up as a precious thing and swallowed by people all over the world. I am telling you just the truth as science states it, just the actual fact. Here are some yeast cells growing in a sugar solution, and they are growing merrily and rapidly, and they are excreting, throwing off this waste matter, alcohol, and when the alcohol accumulates to ten per cent, they are dead; can not live. So you see what a poison alcohol is to the thing that produces it. That is why beer has not more than ten per cent alcohol in it. They put the sugar in and ferment it, get just as much alcohol in it as they can possibly get into it; and the yeast simply dies. If they want to get any more than ten or twelve per cent, they have got to put it in the form of alcohol, for the yeast cell can not make it, because alcohol is an excrement, and it kills the thing which produces it. That is exactly what kills men—the accumulation of excrement in the body; when a man goes so far as to eat another body with the excrement in it, he has added to his own poisons the poisons of this other body, you see; and when he goes further than that and hunts up a vegetable that produces excrement similar to that of the animal, like the tea plant, like the coffee plant, or like the cocoa plant, and makes beverages out of them, drinks them for just the reason that the man likes the beef-juice, or beef-tea, and the gravy from the meat, he is eating or drinking disease for himself.

There is another source of poisons that is worse than any of these,—the poisons that are produced in the alimentary canal, by an unusual, we might say an accidental, process, through the decomposition, the decaying of undigested foodstuffs in the intestine. Now, this putrefaction of foodstuffs, particularly of the protein element of food, is the source of the most deadly poisons and the most prolific source of poisons. These poisons permeate the whole system, defiling the breath and impeding every vital function.

It is in reference to the poisons of which I have been speaking that I wish to make clear to you why it is that yogurt is of value, particularly to civilized man. It is because he has all these poisons accumulating in his body, and the worst of all are these putrefactive poisons. The great value of yogurt is in the fact that it suppresses these putrefactive poisons and stops the process of pu-

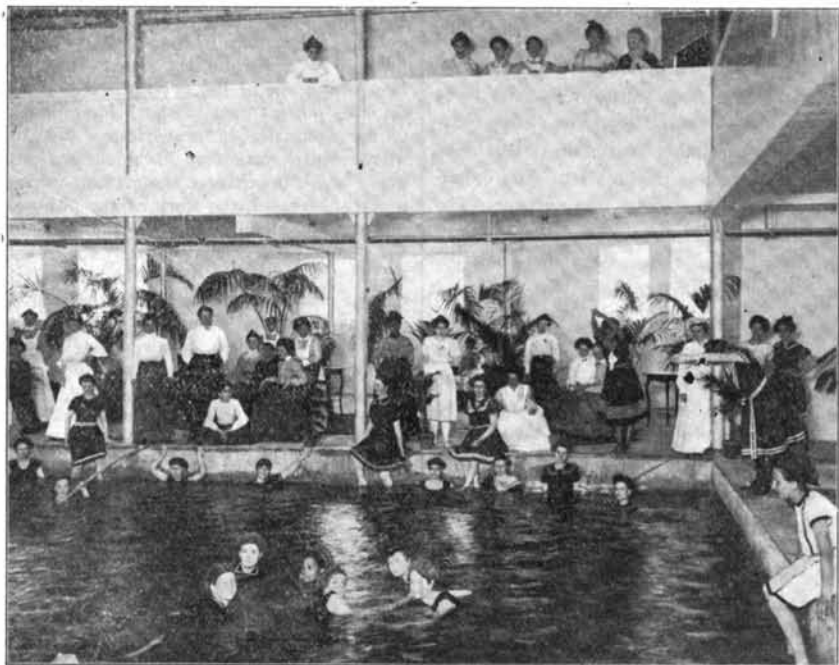
trification. Down in our cooking-school department we have a piece of beef. That piece of beef had a decided taint to it. We put it into a pan of milk, put some yogurt germs in with it, and that beefsteak is there now. It hasn't a particle of taint. This beefsteak was put into yogurt buttermilk a year and a half ago, and it is perfectly sweet; there is not the slightest bit of decay about it; the decay has absolutely stopped. Now, what yogurt will do to a piece of decaying meat outside the body, it will do inside the body; but you have to take enough of it so that the yogurt will fill up the territory again and occupy the field. If a farmer is going to sow oats, he sows oats enough to occupy the field and fill up the soil, for if he doesn't, the weeds will grow up and kill the crop. The trouble is we have weeds in our alimentary canal.

Eseherich, and many more whose names I might mention to you—all the great European scientists have brought out these facts. These are not Battle Creek Sanitarium fads and fancies of which I am talking to you tonight; I am telling you the facts of science as they are known to every bacteriologist in the world, and no one who knows anything about it would dispute them.

INSOMNIA—CAUSES AND CURE

Dr. W. H. Riley Speaks to Patients on the Subject of Sleeplessness and Gives Good Advice

INSOMNIA is not a disease; it is simply a symptom. It is usually present in most



THE LADIES' INSIDE SWIMMING-POOL

Mr. Dooley said that when he went to see the doctor, the doctor thumped him, punched his stomach, looked at his tongue, and he said, "Mr. Dooley, the weeds are getting into your posey garden"; and there is a good deal of truth in that. Mr. Dooley wrote this a good many years ago. Now the doctors talk about the flora of the intestine. The botany of the stomach is studied with as much care as the chemistry of the stomach was studied years ago; and this botanical study of the stomach and intestine has shown us that there are two classes of micro-organisms or fungus plants that grow there, one kind that is unfriendly. These are germs that cause putrefaction, germs that cause putrescence in flesh, and it is these germs that swarm in flesh, and whenever you eat a morsel of meat, you are swallowing millions of them. I am not telling you now what I suppose, or what I guess, or any of my theories; I am telling you the scientific facts about it, and it is recognized by such men as Metchnikoff, and Tissier, Roger, Bouchard, and

cases of neurasthenia, but perhaps not in all. Mild cases of neurasthenia might not be attended by insomnia, but insomnia is one of the most troublesome symptoms of a fully developed case of neurasthenia. It is also present in almost any disease where the strength is reduced, such as indigestion, chronic constitutional disease like tuberculosis, diabetes, and rheumatism. In fact, in almost any disease where the general health is impaired, the patient is not likely to sleep well. There are a great many causes for insomnia. Some people are born poor sleepers. I had a gentleman under my care some months ago, and in taking his history, he told me that his father, and grandfather, and several uncles were poor sleepers, and according to his report he seldom slept more than two hours in a night. I am not sure that his statement was correct. I do not mean to say that he was not truthful, but perhaps his opinion was not altogether reliable; at any rate, he thought he slept only

(Continued on page five)

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WHAT CONSTITUTES A CHARITABLE WORK?

THIS is a question upon which there seems to be some degree of misapprehension. Such an enterprise is one that is carried on for the benefit of the people at large, in which benefit all classes are permitted to participate. Those who are poor are made to share those benefits. An essential condition to the character of a charitable institution is that it be not carried on for the object of gain or advantage to those who are its promoters. The absence of mercenary aims and pecuniary benefit is absolutely necessary to permit the claim of charitable intent.

It is not necessary that such a work should be maintained by freewill offerings secured from the people by solicitation or otherwise. A person of large means might carry on a charitable undertaking without other help. He could pay all bills and carry the entire burdens of the work. Or, the enterprise could be made to be self-supporting by attaching to it such collateral work as should yield the necessary support for the disinterested work carried on and for which the institution especially stood. Or, in another case, the benefits of the enterprise might be extended to those who are able and willing to pay such remuneration as shall enable the same benefits to be extended to those in impecunious circumstances.

This manner of conducting the work would not annul its charitable character, so long as those having the work in hand did not use the income for their own enrichment or advantage, but when the element of personal gain enters an enterprise, its charitable character is at once nullified. On the other hand, any work that is conducted for the good of the people, the element of personal gain being absent, becomes a charitable work, even though it be so conducted as to maintain itself without appealing to the public for gratuitous financial assistance. This proposition is self-evident and has been sustained by the decision of our federal authorities. A charitable work may be self-supporting; and a charitable man, or institution, is not necessarily a beggar.

VOTE FOR YOURSELF

ALREADY the politician is abroad in the land, and invitations and solicitations couched in pleasant terms are passing hither and thither through the mails. Most of those who are in search of position and office make no concealment of their ambition. The place does not seek the man; men are seeking the place. The time was when to vote for one's self in the political struggle was considered rather immodest; that day has passed.

But there is a place where each man and each woman is justly entitled by privilege and duty to vote for himself and herself, and that is in the matter of health, and the attitude which each one assumes in regard to his own case generally decides the matter. The apostle exhorts us to make "our calling and election sure." When one becomes ill there arises at once the question as to his final recovery. Is he going to survive, or is he going to succumb? In the settlement of this question every invalid has an important part to act, and one of the first things he should do is to put his own will and determination on the right side. If he surrenders and gives up the battle, makes up his mind that he is going to die, the chances against him are very greatly increased, the work of the physician and nurse is doubled or more than doubled, for they have to combat not only the inroads of the disease but the whole tendency of the mental condition of the patient as well.

Many a man and woman has frowned down an attack of sickness and overcome it by an indomitable will which refused to surrender. This can not always be done, but to place one's self on the right side of the question and to lift with a cheerful, hearty determination is a great help to recovery. To be in harmony with what is being done, to receive the treatments gratefully, and thus aid them in the accomplishment of their purpose is of great assistance in the doctor's work. "Never give up the ship" is good advice. "While there is life there is hope," and where there is hope there is always a good chance for life.

AN EASTERN INSTITUTION UNDER CONTEMPLATION

DR. C. E. STEWART and Mr. M. W. Wentworth, of the Battle Creek Sanitarium, have recently returned from an extended trip to the East. They went in company with Dr. J. H. Kellogg at the solicitation of certain prominent men who are interested in the establishment of a Sanitarium to be conducted on similar lines to the Battle Creek Sanitarium in the vicinity of New York and Philadelphia. They are very enthusiastic over the reception accorded them, and the liberal propositions made to them both in Lakewood and Atlantic City. In the former city there is tendered them on the most favorable terms an elegant hotel property capable of accommodating seven or eight hundred patients. This property is within three hours of seven millions of people and is situated in what is known as a great health resort locality. The proposition from Atlantic City is equally as good, and both are of such a nature that they will receive careful consideration by those directly interested.

This departure does not contemplate the abandonment of the Battle Creek institution; but the constantly increasing patronage makes it necessary to plan for better and larger facilities. And as Battle Creek does not seem to offer the best conditions in this direction, the time seems to have come when it will be necessary to take advantage of some of the liberal inducements that are being held out in other localities.

THE SANITARIUM NOT A HOTEL

(Continued from page one)

who observe it, and men who are accustomed to the management of large bodies of men often wonder at the absence of anything that has the appearance of general management or bossism. We do not wish to be understood that there is no general supervision and management, but to say that it is of such a character as to be noticeable to the least degree. This is made so by the fact that all who have the different departments in hand are people of intelligence and of conscientious devotion to their work, and therefore require nothing of that sort of authority which usually marks large aggregations of workers. There is an entire absence of jarring discords and disputes and scolding. As for profane or unbecoming language, it would not be tolerated on the premises even if any one were inclined to indulge in it.

This spirit of courtesy and kindness among the employes is sure to lend an atmosphere of peace to the whole place, and there are very few who enter the doors of the Sanitarium for a few days' stay who do not at once observe this condition. It extends to all the guests and creates among them a cordial feeling of kindness and sympathy that shows itself in many ways.

The lobby and parlors, the palm garden and corridors, as well, are always animated by groups of people in friendly intercourse. No attempt is made to observe the formal conventionalities of fashionable society. People aim to be polite, kind and sociable, and then do not burden themselves beyond that. This liberty from constraint is a great boon to people who come here for treatment and rest. The demands of society are often so exacting and burdensome as to be more than can be borne, and to escape from them into some large, comfortable home where all are on an equality and where the law of unsophisticated kindness prevails is indeed a very great relief.

One thing that gives to the Sanitarium a homelike caste is the presence of religious exercises such as mark the well-ordered Christian home. There is family worship each morning in the large parlor, and a blessing is asked at the table. Indeed, as one enters the door he notices on the window before him a graceful recognition of God in the institution in these words, "He is Thy Life."

Of course the people who are here are for the most part away from home and loved ones; it is therefore fitting that they should be surrounded as far as possible with homelike conditions and made to feel that they are really a part of the homelife of the large family. In this way the ennui and weariness of hotel life is kept away.

INSOMNIA—CAUSE AND CURE

(Continued from page three)

two hours out of the twenty-four. And there we have an illustration of how heredity has a great deal to do with insomnia; in fact, that is recognized as one of the causes of insomnia.

So-called rheumatic diathesis, where there is a tendency for the retention of poisons in the body, is very often a cause of insomnia; and various forms of indigestion and constipation often cause insomnia. And of course in all the acute fevers, as in typhoid fever, measles, diphtheria, the patient does not sleep well. Then there are many other more serious diseases of the body, diseases of the kidneys, diseases of the heart, organic diseases of the brain in which insomnia is present as a symptom.

There are a great many things to be done for insomnia. First of all, the patient's habits should be carefully regulated. He should lead the simple life, and should live as much as possible in the outdoor air. People who have sedentary habits are usually poor sleepers, while the man who works out in the field is usually a good sleeper. The diet should be simple and nutritious, and non-stimulating. The person should cut out all tea and coffee, alcoholic liquors, and everything of a stimulating nature. Meat also is stimulating, and any one who is troubled with insomnia will find it best to eliminate meat from his dietary. If there is any trouble with the digestion or the bowels, of course it should be looked after. Very often washing a man's stomach out before he goes to bed will bring to him a good night's sleep if he has indigestion, or relieving the bowels may do the same thing.

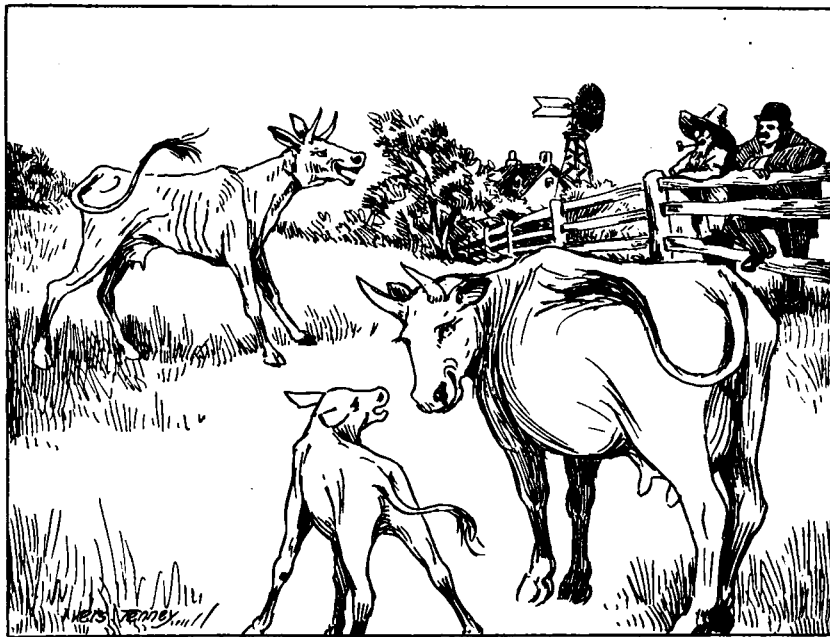
Then, the room should be well ventilated, or, best of all, he should sleep outdoors if he can do so. One can not do that always in this climate in the winter months, but ten years ago I spent some time in Colorado, and had charge of a branch institution there, and we had a good many patients suffering with lung trouble, and part of our treatment was to have these patients live out of doors all the time. We had tents out on the mountain side, and they slept out in them summer, fall, spring, and winter—all the time. I have seen them sleep in tents when the thermometer was ten or fifteen degrees below zero, and it was wonderful to see the improvement they made. Outdoor life is certainly very helpful in these cases as well as in all other cases. I notice that many people who are building new houses, build a little room on the outside of the upper story of the house, where they can sleep outdoors. That is a very good plan. Perhaps in this region we could not sleep outdoors all winter, yet much of the year persons in ordinary health can sleep outdoors without doing themselves any harm, but with great benefit.

There is a difference between sleeping outdoors and sleeping indoors with your windows open. Out of doors one gets more air; it comes freely and fully, a free circulation of it. The sleeping room, I think, should be upon the second story, for the reason that the air is purer there, and away from the dust, and perhaps somewhat more quiet. Fresh air

is an essential thing. You can not get fresh air into the room until you let the foul air out; so you must have one opening to let the air out, and another opening to let the pure air in. If the opening is very large, the air will come in and go out through a single opening, but it is much better to have two openings. The bed should be reasonably hard. Feather beds are not to be recommended. The bed should have sufficient cov-

ering to keep the body warm, but a larger amount of heavy covering is not good,—just enough to keep the body warm, and no more.

So far as the position of the bed is concerned, we often hear it said we should sleep with our heads toward the north. I can not say whether there is anything in that or not. The magnetic lines of the earth travel through the earth nearly north and south, but there is not necessarily anything in that



HAPPY RESULTS OF THE MEAT STRIKE

CALF: "Mother, what is grandma laughing about?"

Cow: "My child, she is laughing to hear the butcher say that on account of the meat strike he will not be able to use her for sausage; and the farmer says he'll have to let her die naturally of tuberculosis."

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fact to indicate how the body should lie. I do not think it has ever been demonstrated. So far as I know, it does not make any difference whether you sleep with your head to the north or to the south, or the east or the west. Have a well ventilated, quiet room, a bed that is smooth and hard with sufficient covering, live a wholesome life, regulate the diet, and go to bed regularly in good season. The function of sleep is easily disturbed. If a person goes to bed regularly at a certain hour and keeps that habit up, his body accommodates itself to the conditions; but if a man will sit up late on some nights or stay up all night, it breaks the habit, and very often insomnia is brought on by irregular habits in retiring.

QUESTION BOX DEPARTMENT

EACH Monday evening Dr. Kellogg conducts a Question Box talk in the Sanitarium parlor, where all guests and patients are at liberty to submit questions relating to health and health topics.

Q. In hyperpepsia would you consider cream preferable to butter?

A. As a rule, cream is preferable to butter. It does not stay in the stomach so long, and has the same effect upon the stomach as butter in restraining the production of acid.

Q. Where there is hyperacidity of the stomach, and all fats and oils cause biliousness, what should one eat?

A. Be careful to avoid animal fats; use vegetable fats; use nuts particularly instead of animal fats.

Q. What causes a quick, catchy pain in the stomach, making it impossible for a few minutes to straighten up?

A. That is not in the stomach at all. This trouble is possibly muscular; may be the intercostal nerves. It sometimes is due to a contraction of the colon, a little spasm is produced, possibly, in the angle of the colon which lies up under the spleen—the so-called splenic flexure, or the hepatic flexure on the other side.

Q. Explain the difference between the galvanic and the sinusoidal electrical bath; and state if they cure nervous exhaustion.

A. The galvanic and the sinusoidal bath are two quite different forms of electrical bath. The galvanic electrical current passes in one direction; the positive pole being at one end of the tub and the negative pole at the other. The general effect of the galvanic bath is usually soothing, or sedative. So the galvanic bath is very excellent for persons who are nervous, irritable and sleepless. In the sinusoidal bath there is the to and fro current, passing back and forth very rapidly. Every time the little pulley revolves, there is a movement of the current back and forth; and the more rapid the revolution of the pulley, the more rapid is the current. There are

somewhere about 3,000 to 6,000 of these alternations per minute in the current as it is ordinarily administered.

We feel rather proud to be able to say that this current was first used in the Battle Creek Sanitarium, and was discovered here by experiments made some years ago. We discovered that this current would cause muscular contraction without pain. Further experimentation showed it to be of great value as a means of stimulating the nervous system when it had gotten into a very depreciated condition. So we find it of great use in the case of paralyzed muscles. Later we found it was a most excellent means of stimulating the metabolism. For instance, a man was put into a bath tub with the temperature at 70°. The rate at which the water was warmed up by contact with the body was noted, with very delicate thermometers, and the rate at which the body was throwing off heat was measured by the rate at which the water was warmed up. Then the sinusoidal current was turned on. Instantly there was no longer any sensation of cold, and the rate at which the water warmed up increased by 35 per cent. That fact demonstrated that this current stimulates the heat producing process in the body, so that a large amount of heat was produced, enough to keep the body warm and to give off a large amount of heat to the water. This demonstrates the influence of the sinusoidal current upon metabolism.

Q. What is *lagrippe*?

A. The *lagrippe* is an infectious disease due to a peculiar germ discovered by Professor Koch's son-in-law. In fact, there is an idea existing in the minds of some that the "grippe" is promoted by a company of germs located away off somewhere in the eastern border of Russia that have formed a corporation started out to conquer the world. They break out sometimes in one direction and sometimes in another. Sometimes one germ is more virulent than another; but they appear in different forms of association. I don't know about this theory; it seems a rather facetious idea, I think; but it is known to be a germ which is infectious

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and is very easily communicated through the air.

Q. What modes of treatment and life would you recommend for a person with a weak heart whose pulse is low and feeble much of the time, but runs up to 100 with a little exercise, and very great general debility: is it curable?

A. Probably the general debility is the cause of the trouble, and that must be cured. The heart is a muscle like the rest of the muscles of the body, and when the muscles in general are weak, the heart is also weak. A woman has more liver than a man and less heart. It is because a woman's fist is smaller than a man's. The heart and the first are the same size. If a man has a large fist, he has a large heart to back up his large fist. An average woman's muscular strength is half that of a man. We know that from thousands of observations made with our dynamometer. Whatever will build up the muscular system and make it strong will also build up the heart and make it strong. So a man who is weak generally finds his heart beating very rapidly when he takes a little exercise. He needs active, systematic exercise, a little exercise to-day and a little more to-morrow, and a little more next day, so adding gradually to the vigor of the exercise from day to day until he can take strong exercise, and the heart will grow strong along with the rest. That is the way in which the heart can be developed.

Q. What is the cause of a burning in the soles of the feet?

A. Auto-intoxication; poisons affecting the vasomotor centers of the cord. We have always known it was due to disturbance of the vasomotor centers, but we didn't know what caused it until Combe, of Lausanne, pointed out to us that it was due to poisons absorbed from the intestine, paralyzing the vasomotor centers, which allows the blood-vessels to relax so that too much blood enters the feet. It can be paralysis of the vasomotor centers or spasm, either one—coldness of the hands and feet, or hot feet. Look at

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the tongues of such people, and you will see what their trouble is. It is an irritated colon, and that colon is pouring rottenness into the blood continually, that is the cause of all the mischief. Get rid of that, and the nervousness disappears; the depression and melancholy disappear like dew before the sun.

Q. Name the most suitable vegetables in hyperhydrochloria.

A. In hyperhydrochloria one must be careful in eating vegetables to chew them very well. I think the most suitable vegetables in hyperhydrochloria are lettuce and raw cabbage. Many people find they can not take cooked cabbage, but can take raw cabbage without any difficulty at all. Raw cabbage well chewed will not undergo fermentation nearly so quickly as cooked cabbage; and it does not excite the stomach so quickly. Potato is good if it is well chewed, but if it is swallowed in chunks it will certainly make trouble. Potatoes should be mashed or baked, for the reason that they are likely to be more thoroughly masticated. Little lumps of potato down in the stomach will not digest, and, remaining there a long time, excite the stomach to make an excess of secretion.

Q. May we not get autointoxication by lack of sufficient nerve force to enable the digestive organs to perform their normal functions, even when the diet is simplified and balanced as perfectly as may be?

A. No; lack of nerve force is not responsible for failure of the digestive organs to do their work. The brain and nerves are the very last parts of the body to suffer injury. They are the most highly vitalized parts and have the most reparative power. People always are blaming the nerves for things they are not responsible for at all. When a man feels nervous and his brain won't let him sleep, his nerves are simply busy reporting the condition his colon is in. To abuse the nerves for making reports is just exactly the same as ordering your telephone torn out because you hear it shouting, "Your house is afire."

Q. Which is better to drink in the morning, hot or cold water?

A. It depends on what is the matter with you. If you have hypoacidity, drink cold; if you have hyperacidity, drink hot, but not very much of it. Half a glassful of hot water half an hour before breakfast will do no harm. If you are hypo, sip half a glass of cold water.

Q. The muscles of the back of my neck are stiff, and I do not get rid of it. What would you advise?

A. I should think the best way would be the beating compress, or good thorough massage, or the application of static electricity.

Q. If in using Colax one wishes to have less bulk, is there danger of taking it too hard for the lining of the intestines by less soaking?

A. No; it can be taken dry if preferred. A very good way is to cut it up fine and take it with apple sauce or something of that sort.

ARRIVALS

THE list of arrivals at the Battle Creek Sanitarium for the week ending January 31 is as follows: J. I. Hey, Tex.; Mrs. T. A. Jellineck, Ind.; Mr. and Mrs. W. C. Dreier, New York; Alfred Fremiel, Mo.; John H. Clarke, Cleveland; Miss E. Moody, Mich.; Mr. and Mrs. Fred A. Hodge, Minn.; C. W. Delvey, Chicago; Frank I. Moore, Mich.; Wm. F. Pohlman, Buffalo; H. H. Barrett, Mich.; Mrs. Carl Meyer, Buffalo; Clara Benham, F. E. Zimmer, Ind.; Mrs. John R. Waller and Miss Waller, Iowa; O. M. Roberts, S. Dak.; Frank J. Burns, Ill.; W. E. Newark, Pa.; Miss May L. Campbell, Pa.; P. M. Church and wife, Mich.; Wm. Bailey McCreery, Pa.; T. Roth, Brooklyn; Mrs. M. Graham and Mrs. Brooks, New York City; Mrs. H. B. Hergesheimer, Mich.; Mrs. R. J. Denlin, Ont.; Mr. and Mrs. Z. L. White, Ohio; A. E. Copping, Mich.; H. W. Osborn, Minneapolis; John J. Evans, Ohio; C. A. Croft, W. Va.; Mr. and Mrs. A. Gilbert, N. Y.; M. H. Carter, New York City; E. Myers and wife, W. Va.; Dan P. Jones, Minneapolis; Mrs. R. L. McCord, Iowa; H. M. Caldwell, Tenn.; G. E. Mosher and wife, Wis.; Jas. V. Oliver, Ohio; W. H. Walk, Pa.; D. W. Lewis, New York City; E. E. Bartlett, Ill.; Percy Proctor, Cincinnati; Chas. Peterson, Texas; S. F. Craig, Mich.; C. G. Wilcox, Wis.; J. Thos. Ward, Ohio; Mrs. Edw. D. Jones, Mich.; MaBelle Young, Ethel Rockwell, Lawrence Taylor, Kalamazoo; C. H. Goodwin, City; Fred Butler and wife, Ind.; Ira Miller and Paul J. Miller, Mich.; C. A. Eberlein and Isabelle Alber, Ind.; L. E. Lackland, Mrs. L. E. Lackland, and Miss E. F. McCollister, Ill.; C. W. Spofford and wife, Ill.; W. H. Seudder and A. R. Allan, Ohio; Patrick Duggan, S. Dak.; Mrs. Robt. W. S. Murray, City; Dr. J. S. McEuker, R. I.; Fred E. Hagin, Calif.; Robt. L. Owens, M. D., Mont.; L. W. Chalmers, Chicago; A. H. Johnston, Ind.; Miss C. E. Thayer, N. Y.; W. I. Boweman, W. Va.; Frank A. Tarr, Pa.; S. M. McClury and Mrs. S. M. McClury, Iowa; E. A. Webb, Minn.; Mrs. J. Thos. Ward, Ohio; R. H. A. Haslam, Canada; W. F. Harris, Minneapolis; Mrs. W. E. Brooks, Boston; Mrs. C. H. Shook, Pa.; B. D. Cushman, Detroit; Miss Mary S. Smi-

ley, Ont.; H. T. Myers, Chicago; Chas. Anderson, Ill.; Mrs. R. N. Smith, Ind.; Miss J. L. Jillson, Turkey; D. M. M. Acker, Ind.; John J. LeFevell and Wm. F. LeFevell, Chicago; Mrs. Sarah Jackson and Mrs. W. H. Pundt, Ill.; Mrs. Henry Topping, Japan; Irwin Mate, Ohio; Lloyd A. Patch, Ill.; H. H. Herpolisheimer, Mich.; E. Fisher, Colo.; Mrs. T. J. Phillips and W. F. Phillips, Toronto; L. N. Debble, Mass.; L. L. Fawcett, Brooklyn; W. J. Blieding, Mo.; Claude Chappell, Mich.; Mrs. D. W. Valentine, Mich.; E. W. Johnson, Utah; Mrs. J. Hey, Mich.; C. W. Van Fleet, Ind.; H. H. Albert, Ind.; W. W. Hoffmaster, City; Albert Luther, Ia.; A. E. Huber, Minneapolis; Alex. McDermott and wife, British Columbia.

News and Personals

Dr. Elizabeth Kerr-Harris, of the Sanitarium medical staff, has been called to California by the illness of her sister.

Mr. Harvey Lichtenwalner, of the Pharmacy department, left the first of the week for his home in Monroe, Wis.

Rev. R. H. A. Haslam, of Toronto, returned missionary from India, is taking much-needed rest and treatment at the Sanitarium.

Mrs. Chas. C. Creegan, of Fargo, N. Dak., left us for her home on Monday, after a week's visit with friends in the Sanitarium. We are glad to report that her brother's health is quite fully restored.

Just a Word To Our Patrons

The Sanitarium has a first class washery and your clothes will receive special care at reasonable prices.

Phone Office for boy, or

SANITARIUM LAUNDRY

TWO COURSES IN DOMESTIC SCIENCE

The One-Year Course, intended especially for Matrons and Housekeepers or for those who desire it for its educational value, includes General Cookery, Invalid Cookery Institutional Cookery and Practice Cookery, Anatomy and Physiology, Household Chemistry, Home Nursing, Household Microscopy, Household Economics and Architecture, Sewing, Medical Dietetics, Theory, Table Service, Physical Culture, etc.

The Two-Year or professional course, intended especially for Dietitians, Lecturers, and Demonstrators, includes all the studies of the one-year course, and in addition Advanced Chemistry, Advanced Physiology, Sanitary Science, Bacteriology, and Hygiene, and Advanced English.

ONE SPECIAL FEATURE of this school is that students are given an opportunity to meet a large part of their expenses by work along lines which aid them in their studies.

**The Battle Creek Sanitarium School
of Health and Household Economics**

**BATTLE CREEK
MICHIGAN**

H. V. Adams and wife, of Des Moines, Ia., who have been stopping at the Sanitarium for a few days, have returned to their home.

W. I. Boreman, Esq., a leading merchant of Parkersburg, W. Va., and a literary man of some local reputation, is visiting his wife, who is a patient at the Sanitarium.

Rev. A. C. Dixon, pastor of the Moody Church in Chicago, is a guest at the Sanitarium for a few days. He addressed the patients on Wednesday afternoon.

Misses Rockwell and Young, and Mr. Browne, of Kalamazoo, all physical directors, spent the day at the Sanitarium last Monday in consultation with the physical directors of this institution. It was decided to proceed to the organization of the Southern Michigan Physical Directors' Association, and a meeting for this purpose will be held in Kalamazoo on March 26.

Rev. J. H. Willey, D. D., pastor of St. Marks Church, Brooklyn, spent a few days at the Sanitarium last week and returned home delighted with what he saw and experienced while here. He expects to spend his next summer's vacation here.

Dr. J. D. McCord, medical missionary from Durban, Natal, South Africa, who is to attend the coming Medical Missionary Conference, has reached us, accompanied by his mother, Mrs. R. L. McCord, of Lake City, Iowa, who comes as a patient.

Miss M. Graham, of New York City, accompanied by her sister, Mrs. Brooks, has entered the institution for rest and treatment.

David P. Jones, ex-mayor of Minneapolis, the man who gave his city a clean business administration, is a patient at the Sanitarium.

Doctor Robert L. Owen, of Hamilton, Mont., and Dr. Louie Vandervoort, of New York, both formerly members of the Sanitarium staff, accompanied their father, Mr. H. C. Owen, of Ohio, to the Sanitarium last week. The father is suffering from a serious complaint, and Doctor Vandervoort will remain with him.

At a recent meeting of the training school committee the following young men were admitted to the nurses' class: John Dye, Carl Keyes, Grover Murphy, George Connolly and Carl Petry. The new nurses' class has now reached the largest number of any class in recent years; it contains an even forty members.

The patronage of the Battle Creek Sanitarium was never better at this time of the year than at present. A large number of people are seeking to avail themselves of the advantages here offered to those who are sick or enfeebled. The circle of its friends is continually enlarging and those who have once shared its benefits become its open admirers and advocates. The very best advertising that the Sanitarium has ever had is its own work.

The Evangelistic meetings which have been carried on at the Methodist church in this city during the month of January, under the leadership of Rev. Henry M. Stough, of Wheaton, Ill., were brought to a close on last Monday evening after a very successful campaign, which has resulted in a marked improvement in the spiritual life of many of our people. During their stay at the Sanitarium, Doctor Stough and his associates gained many friends, and their influence for good was perceptibly felt.

The preparations for the coming Medical Missionary Conference to be held at the Sanitarium, February 15-17, are going rapidly forward. The Conference will be presided over by Rev. Robert Hamil Nassau, M. D., D. D., of Philadelphia, who was for fifty years a medical missionary in Western Africa. Associated with him will be Bishop J. M. Thoburn, for fifty years a leading missionary in India. The Conference will open on Tuesday, the 15th, with a reception at noon, followed by a luncheon, in which the missionaries and delegates, the city pastors and their wives, the Sanitarium staff, and medical students will participate. It is expected that there will be two hundred guests. The regular work of the Conference will be taken up at 3 o'clock. Two meetings will be held daily, at 3 o'clock and 7:30 p. m. The program includes a large number of talented and noted speakers, representing missionary fields in various parts of the world. A most interesting and profitable meeting seems to be assured.

Battle Creek Sanitarium School of Physical Education

A GREAT OPPORTUNITY FOR YOUNG MEN AND WOMEN. Expenses may be largely paid in work. Gymnastics—German and Swedish; Dietetics; Massage; Hydrotherapy; What to do in Accidents, Emergencies and Common Maladies; Medical Gymnastics. Anatomy and Physiology; Chemical and Anatomical Laboratory work; Large Indoor and Outdoor Gymnasium and Swimming Pools.



Large Faculty of able teachers and trainers. Course one year. Tuition full year, \$85.00; Board and Room, \$3.00 to \$3.50. A number of students may pay their way in work.

Mr. Horace Fletcher will give a course of lectures on vital economics, and Mr. John F. Stapleton, formerly of the Yale Gymnasium, a special course on theory and practice of Swedish gymnastics.

The next regular term (new class beginning) opens January 3, 1910.

Any who are interested will be sent illustrated announcement with further details on request. Address:

The Battle Creek Sanitarium School of Physical Education
BATTLE CREEK, - - - MICHIGAN

THE BATTLE CREEK IDEA



Vol. III No. 10

BATTLE CREEK, MICH., FEBRUARY 11, 1910

Price 2 Cents

HYDROTHERAPY IN THE CURE OF DISEASE

Modified According to the Basic Principles of the True Healing Art and Adapted for Use in a Modern Sanitarium

DOCTOR KELLOGG's lecture presented in another column, gives a sketch of the rise of this branch of the healing art in modern times as it originated in the Austrian Alps one hundred years ago. In the hands of Vincens Priessnitz the water-cure was conducted according to the basic principles of

An Eminent British Visitor

A Prominent English Doctor Visits the Sanitarium and Reports His Observations

THE following account of the visit of a leading English physician to our institution appears in the November number of the *British Health Review*:

Early in May of this year I had the good fortune to be able to pay a visit to the Battle Creek Sanitarium, Michigan, U. S. A., which

THE BEGINNINGS OF THE BATTLE CREEK IDEA

The Origin of the Diet and of Hydrotherapy—A Lecture in the Sanitarium Parlor by Dr. J. H. Kellogg

WE are continually reminded of the fact that there is very little that is new in the world. Many of the new ideas that are exploited in modern times are only rediscoveries of things which have been long since lost. This is true with reference to the healing art. There is very little that is good, or



A GROUP OF SANITARIUM NURSES

the true healing art, but the appliances were almost barbarously rude, and many of the measures were heroic in the extreme. The principles were applied with little regard for the momentary feelings of the patient; no particular pains were taken, as we judge, to modify the rigors of the treatments or meet the comforts of the body, so that it was simply a choice between two evils, one of which was death, and the other a selection of the lesser by those who submitted to the outdoor douches falling in ice-cold torrents from a height of twenty feet, to be preceded and followed by a seven- or eight-mile walk over mountains or a more painful ride in jolting ox-carts over mountain paths. That such treatments resulted in the restoration to health of the invalids who submitted to them is a tribute both to the merits of the system

(Continued on page three)

was both a revelation and an inspiration.

It was a revelation inasmuch that although I knew it was the headquarters of physiotherapy, I was not prepared for such an array of methods in its therapeutical armamentarium. I had expected to find dietotherapy developed to the highest stage of evolution, but I discovered that whatever healing of the body was not accomplished by this means was further dealt with by hydrotherapy, electrotherapy, thermotherapy, psychotherapy, phototherapy, mechanotherapy, and physical culture in all its forms, and that even the final appeal to surgery was not refused.

It was an inspiration because, in common with the thirty physicians and close upon a thousand other helpers in the institution, I could not fail to be infected with some of the

(Continued on page five)

really genuine in therapeutics, that is at all new. The things we do here in this institution are not new at all; they are old, and that is the reason why I feel confidence in them. If I thought the methods that we are employing here, and the principles we teach were only experimental, on trial, I confess I should have very little faith in them.

It has been over forty years since I renounced the use of flesh food. I never made a pledge that I would not eat meat; but for twenty-five years it was a pure experiment. And as I went on with the experiment, I became more and more satisfied. During this time I compared the two diets in this institution. We had meat tables and gave people meat if they wanted it, if we thought they would do better on a meat diet. In fact, during the thirty-four years since I took charge of this institution there have

been only about eight years that we have not been using meat; so you will see the vegetarian idea is not something we adopted without thorough investigation.

Finally I said to my colleagues, "Have we not tried it long enough? Are we not satisfied as to whether the meat diet is good for our patients or not, or whether we can cure people better without flesh food?" And there was not one dissenting voice among our doctors and our managers. After the fire, while we were erecting our new building, I brought the question up. I first called the cooks in and said, "What do you think about it? How would you like to try to prepare meals without any meat?" "Oh," they said, "it would be such a delightful thing. We want to get rid of this odor of fried, burning flesh." I called the managers in, the steward, and the doctors, and everybody said, "Let us discard the flesh pots, because it does not do any one any good, and it is a nuisance to have it around." So it was decided. But we thought it better not to announce it, because we had 1,000 people, and if we told them we were not going to allow them to have any beefsteak, some of them might think they were going to be starved to death and would want to leave. So we decided to use a little strategy. The waiters were instructed that if anybody called for beefsteak, they should take the order and then go back and say, "We are very sorry, but we are out this morning." When dinner-time came the scene was repeated. Some of the guests began to suspect that perhaps this was a serious situation, and a gentleman said, "Now, I want you to get my beefsteak, and there is to be no fooling about this thing. If you do not give me that beefsteak, I shall be moving right out of here." Well, the beefsteak did not come, and the gentleman said, "Well, I will just wait here another day;" and he waited over another day, and by that time he concluded not to go, and not a single patient left the institution, not one.

From that time until the present, I assure you everybody here has become more and more convinced that it would be nothing short of a calamity to return to the flesh diet. We are here to promote reforms for the betterment of our race. We take food that has been prepared by Nature for our use, and transfigure it into living, active, sentient human beings; and we require the very best we can get. It was in the manner I have described that the fleshless diet came to be adopted by the Battle Creek Sanitarium; and from our past experience we have no expectation of returning to our old evil ways.

But flesh eating was not the original diet prepared and prescribed for mankind. It came with other evil practices and has become prevalent like many other forms of transgression. In the beginning the Creator indicated clearly what was the best food for us in these words: "Behold, I have given you every herb bearing seed which is upon the face of all the earth, and every tree, in the which is the fruit of a tree yielding seed; to you it shall be for meat." And it is our effort to restore the "old paths" established by divine wisdom.

THE SANITARIUM SYSTEM IS NOT A NEW IDEA

Now, the very same thing is true of some of the other features of our work; they are not new; indeed, it is all old. If you go back to the very earliest dawn of history, you will find traces of the use of water in the treatment of disease. Doctor Hippocrates, the earliest doctor whose name we have, and who lived three or four centuries before Christ, wrote much about the use of water.

When I was in New York some time ago, I said to the doctor at one of the hospitals, "What do you do for a patient with sunstroke?" "Why," he said, "we have a man stand up upon a chair and pour cold water on him; then at the same time we have two men rubbing him just as hard as they can." I said, "Did you know that Hippocrates, more than two thousand years ago, prescribed that method of treating sunstroke?" He advised holding cold water up high and pouring it down upon the patient lying upon the ground, then having him rubbed vigorously at the same time. That brings the blood to the surface, relieves the congestion, and carries off the surplus heat at the same time. If you

Mohammedan feels when he is going to Mecca. To get there, one must go up a little, narrow-gauge railroad, into the mountains. But one hundred years ago it was a great deal more difficult to get there than it is now. It then took six weeks from London to Graefenburg. But even then, one hundred years ago, travelers went there from this country, and from South America. There they found this boy, Vincens Priessnitz, at work.

THE DAWN OF HYDROTHERAPY

How Priessnitz came to use water is a very interesting story. One day there came along a traveling tinker, and he stopped at the house of the father of Priessnitz, and while he was mending locks about the place, he heard the elder Priessnitz say to his hired man, "I am afraid we shall have to kill that cow." The cow had backed up against a sickle and cut off the tendons of her leg near the foot. This man came out of his room and said, "I can cure the cow. I have a magic by which I am able to cure wounds." So he said, "If you will give me a couple of little sticks and some cloths and some water, I will cure the cow for you." He insisted



PIRISSNITZ TREATING HIS PATIENTS

poured cold water on without rubbing, it would kill the man, but the cold water is poured on with the rubbing, and that draws the blood to the surface, and the blood coming to the surface is cooled off as fast as it is possible to cool it off and thus reduces that excessively high temperature to which sunstroke is due. Nothing could possibly be more rational; nothing could be more scientific than that, yet it was discovered more than two thousand years ago, then it was forgotten until a little more than one hundred years ago, when a peasant boy, over in Austrian Silesia, who could not read or write, rediscovered the whole system of treating disease of which this treatment was a part, and gave to the world hydrotherapy.

His name was Vincens Priessnitz. I made a pilgrimage to the place. It was really a pilgrimage to me; I felt, I suppose, as the

upon going alone; but the father told his son to go along and see what he did. As he was a little fellow, the man did not mind him. Vincens saw him take the two sticks and cross them on the cow's foot, then he repeated over the sticks some cabalistic words that had no meaning; then he took a cloth, and with the pitcher of water he wet the cloth, wrung it out and wrapped it around the wound; and he said when he came back, "Now you take that cloth off and wet it three times a day, and put it back on the wound, and it will get well." And sure enough, the cow got well.

The tinker came back after a few weeks and it was decided that Vincens should become a magician; so arrangements were made to purchase the formula he used for healing the cow, and Vincens was installed as a magic healer.

He began treating the horses and cattle about the neighborhood, and the recoveries were so remarkable that people began to come and demand help also; and while I was there I saw a large drawing of the little settee in front of his father's house, completely filled with poor people who were there; and Vincens was rubbing their limbs and putting on wet bandages.

He himself had an accident. He helped his father cutting logs, and carrying them down the mountain. The horses ran away, and a log rolled over Vincens, crushing his side so badly that the doctor said he must die. But he had cloths wrung out of water and laid over him, at the same time uttering his cabalistic words, and in a few weeks he was well in spite of the doctor's prognostication; and that taught him as well as others that water was just as good for man as it was for animals.

As his work went on he got a great reputation all through that part of Austria and Bohemia and other parts; and he was known as "the doctor of the little sticks" because he used those two little sticks. By and by he discontinued the use of the wet rags and adopted the use of the sponge instead.

PRIESSNITZ WAS ARRESTED

After this he was arrested and tried for practicing magic, so he discontinued the use of the magic words. The people thought he must put something into the water, and he was arrested and thrown into prison and tried for witchcraft for using magic; but he was acquitted because he proved that he did not put anything into the water. Then he got the reputation of being the doctor of the little sponge, and was known far and wide as the doctor of the little sponge. And little by little he discovered that it was the water that cured, and not the magic at all. Then he became a great enthusiast.

The coopers of that country are extremely expert and all the implements are made of wood. Out in the mountain, behind his house are a dozen or more springs. One of these springs he arranged with hollow logs which allowed the water to fall down about fifteen feet, and he used to send his patients out there some eight or nine miles from his home to get the benefit of this shower. Later he brought the water to his house through hollow logs, and arranged there two douches,—a tall one about twenty feet high, and another one about ten feet high; the latter is known as the mild douche, and the other as the strong douche.

Priessnitz improved his methods and devised a great number of different ways of applying water—so many, in fact, that there has been very little improvement made since.

THE WORLD'S GREATEST AUTHORITY ON HYDROTHERAPY

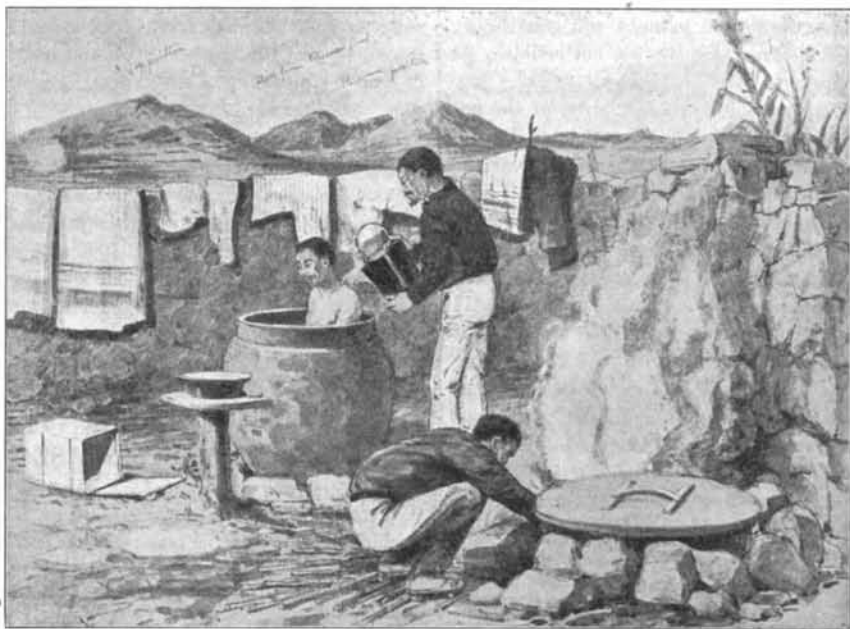
Some years ago I was in Vienna, and I said to Doctor Winternitz, who is perhaps the world's greatest authority on hydrotherapy, "Well, Doctor, what is new?" He said, "There is nothing new; I always follow Priessnitz." And he is one of the most scientific men in Europe. Doctor Winternitz, when a young man, became interested in hydrotherapy and went to Graefenburg to study under the successor of Priessnitz.

I found in Berlin some ten years ago a very eminent doctor, Professor Brieger, who has made some most remarkable discoveries with reference to ptomaines and toxins, who was one of the very first to discover the extremely virulent poisons produced by germs, and I found him in charge of a great hygienic institution conducted by the government, in connection with their university, where hundreds of people are given treatment free. On inquiry I found Professor Brieger had been one of the followers of Priessnitz. He had spent some weeks studying with Pastor Kneippe, who was not a doctor at all, but simply a follower of Priessnitz.

The most eminent of scientific men have been willing to sit at the feet of humble people to learn about the use of water, because they have learned from nature, and by instinct and genius, have discovered these natural means for treating disease. I think this man Priessnitz was an inspired man, for he laid the foundation on which has been wrought the most marvelous revolution in

experience and is robbed of its rigors, while its efficiency is increased by a more philosophical and physiological application of those same principles. It is no longer confined to icy cold water, but the temperature of the water varies according to the effect that is desired. The influences of cold water, of hot water, and of tepid water, have been carefully studied, and these effects are now intelligently applied to the various conditions and devoted to certain definite purposes. The results of each bath or treatment are carefully computed by the physician and the temperature of the water is a part of his prescription, as is also the duration of the bath.

Hydrotherapy, or the treatment of disease by the use of water, is only one of the many means employed for treating the sick in the Battle Creek Sanitarium. It is very largely for the effects of heat and cold which it conveys. In this capacity it operates through the nervous system controlling the circulation of the blood and in stimulating or con-



HYDROTHERAPY IN THE JAPANESE ARMY DURING THE RECENT WAR

the methods of practice in the treatment of the sick that has been known in the history of the world. Water was the first of physiologic methods; and its use has been followed by many other marvelous innovations.

HYDROTHERAPY IN DISEASE

(Continued from page one)

of treatments and to the endurance of the human frame.

In the introduction of the system of water treatment to this country sixty or more years ago, it was not shorn of all of its rudeness and rigors. Cold water was still used exclusively, and the shivering victims undoubtedly often succumbed to its chilly powers instead of rallying under its mighty stimulus.

In the Battle Creek Sanitarium the old water-cure system is modified by skill and

trolling the vital activities of the various organs.

In general terms, the effect of the application of hot water is to relieve pain by lessening the irritability of the nerve fibers. The application of heat in parts more or less remote from the seat of pain has the effect to attract the blood congestion away from the pain center by the enlargement of the vessels to receive the extra blood flow in that direction.

The action of cold water is that of a temporary stimulus, because it is followed by a vigorous reaction of the nerves and blood flow made for the purpose of resisting the intrusion of the cold attack. Prolonged cold acts as a depressant, but short applications are a powerful stimulant. The use of tepid or body-warm applications is for the purpose of producing a sedative effect upon the nerves. Nothing in nature brings a more

(Continued on page four)

The Battle Creek Idea

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THE PROBLEM OF LIVING

THE human body presents a puzzling paradox of weakness and strength, of frailty and of endurance. Life itself is held by an exceedingly feeble tenure, and yet we are able to cling to it with surprising tenacity. It is astonishing to witness the amount of suffering, of exposure, and effort, through which the human machine will successfully pass and not only survive, but maintain its full vigor and force. And yet, at every step we are reminded of our frailty, of the uncertainty of life, and we are constantly admonished of how little it takes to break the thread, to sever the cord of life. A little misstep and we are no more. We miss a very few throbs of the heart, and it never beats again. A slight accident to the brain, and consciousness goes, never to return. If the breath is suspended for but a moment, it can not be restored, all is over. The severing of a blood-vessel will, unless repaired at once, bring the end very quickly. A thousand exigencies and emergencies await us with death in their company.

The thinnest of membranes forms the tissues of the lungs, so delicate as to admit freely of the passing of the air through it, and yet its rupture is a serious calamity. The arteries of the brain are very frail, and yet their thin walls are all that stand between us and the sudden extinction of life.

On the other hand, we see people pass through the most remarkable trials of strength and endurance, and come out all right. The delicate and frail organs which carry on the vital processes of the body are wonderfully sustained in their work. The heart will beat for many years with the unvarying regularity, barring exciting causes, and never lose a stroke; through sleeping and waking hours it keeps up its unwearying work, the lapse of which for one moment would be fatal to us. The heart will struggle on with its work against great odds and under the greatest difficulties. The stomach and other digestive organs will endure a long course of abuse and still keep on with their work, and work after they

have become impaired, as long as it is possible for them to do any part of their work. The human system recovers and renews itself after wasting fevers have preyed upon it until but a vestige is left of the once vigorous body.

Life is our greatest gift, without which all else is vain. It is an elusive, sensitive state, and is easily quenched; and yet it clings to us fondly. We all love it above every other object and would willingly give all else for life. And yet, is it not surprising that so many should show so little regard for it? How many there are like the young man in the cartoon who is burning the candle at both ends. He has "life to burn." He wastes his strength and paralyzes the resources of life. He smokes tobacco, drinks his toddy, keeps wild company, spends his nights in carousals, wastes his substance in riotous living. Life is all before him; why should he care? The old man with few days left carefully tends the candle that has burned so low and seeks to keep the little he has left as long as possible. (See the cartoon on next page.)

There is a lesson there for us. The conservation of resources is just now a popular theme. The most valuable resource we have is life. Shall we uselessly waste the precious heritage by careless habits until it is nearly gone before we realize how foolish we have been? Or shall we rather conserve our strength and health even while it is at its best and by thoughtful use seek to make the most of the best gift we ever shall have?

HYDROTHERAPY IN DISEASE

(Continued from page three)

soothing and comfortable sensation than does the application of water of a temperature the same as that of the body or slightly higher.

The applications of water take a very large range of forms. Swimming is a favorite mode of water treatment with many persons, some of whom engage in it without any sense of its therapeutic value, and in some instances it is done to the harm of those who use it indiscreetly. The full-bath is taken in large tubs in which the entire body is submerged. This may be hot, cold or tepid, according to the effect desired. There is the shower and spray bath, and the spray douche in which water is forced through fine strainers with sufficient force to reduce it to spray or fine streams, and the degree of heat in these baths is also determined by the physician in giving his prescription. The alternation of hot and cold in sprays and douches gives a most salutary effect.

The sitz bath and other local baths are much employed for specific purposes. The local and general application of cold and heat is often best effected through cloths, sheets, and blankets wrung out of the water in which the body or portions of it are en-

veloped. The application of a cold wet cloth of light texture is called a compress. The use of this simple measure is very wide. The application of heavy cloths (flannels) wrung out of hot water is called fomentations, and their use is very general, especially in the reduction of pain. The cold wet sheet is used to enclose the patient in the case of fevers. By wrapping the patient closely in the cold wet sheet covered with several layers of woolen blankets, the cold at first acts as a stimulus, resulting in an increase of heat production and an active circulation of the blood, which produces as a secondary result copious sweating. Many are the lives which have been saved and the long courses of sickness that have been averted by these simple measures. The hot blanket pack is of similar procedure, except that the cold sheet is replaced by a woolen blanket wrung out of water as hot as the patient can bear with a thin sheet between it and his body. The effect of this treatment is to increase the elimination of poisons from the body, reduce painfulness and febrile conditions.

The practice of hydrotherapy is controlled in its legitimate use by thoroughly scientific and physiologic principles which furnish a safe and sure guide in its administration. The methods now employed by progressive institutions are very great improvements over the simpler and ruder ones at first employed, and although the original principles still remain unchanged, the means of applying them are vastly better and more effectual and are accompanied with much less of inconvenience and the absence of actual suffering to the patient.

DEXTRINIZED FOODS

How Starch Foods are Appropriated by the System

(From a lecture by Dr. W. H. Riley)

IN boiling rice or starch-foods the starch is converted into what we call soluble starch; and when we cook them in the oven, as the toasted rice flakes are cooked, the rice is cooked at the temperature of 300 degrees or more. And at a temperature of 300 degrees, starch is converted into dextrin. There are at least three different classes of dextrin. For our purpose, we may call them dextrin No. 1, No. 2, and No. 3. The raw starch is indigestible, but soluble starch is digestible by the saliva. So when we cook starch at a temperature of 212° Fahrenheit at sea level, this raw starch is converted into soluble starch. That is all we can do to the starch by boiling; although perhaps, by boiling it a long time, we may carry this a little further. But if we put rice in the oven and bake it at a temperature of 300° F., or higher, then the starch is converted into dex-

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trin, which is very much more easily digested. Now, we have, as we say, dextrin Nos. 1, 2 and 3. They have other names, but we can call them that for convenience.

Dextrin No. 1 is the least soluble and most difficult to digest. No. 3 would be the easiest of digestion. We can continue that process and can convert the starch into what is called maltose; and here at the Sanitarium we have it in meltose, or malt honey. Maltose is the final product of starch digestion. If we take a cracker or biscuit into the mouth, made up largely of starch, and chew it for a time, it becomes sweet, and the reason is that the starch is converted into dextrin 1, 2 and 3, and finally into maltose, which is a sugar. In order to make maltose, we have to change it from cooked starch through these several dextrins.

Rice flakes are cooked at a high temperature, a temperature of at least 300 degrees, and by that process the starch is converted into dextrin No. 3, so that process predigests the starch, carries it over all the different steps except one, and then the digestive organs very readily transform the dextrin into maltose. So rice flakes are very much more easily digested than the boiled rice.

And the same principle applies to the crust of bread. The crust of bread is more easily digested than the inside of the loaf, because in it the starch is converted into dextrin by the heat of the oven coming into direct contact with the outside of the loaf. That is the reason why the crust of bread is sweeter and more easily digested than the inside of the loaf. When we eat dextrin, we simply have to convert the dextrin over one step into maltose, then it is ready for absorption. If we eat soluble starch, like a boiled potato, we have to convert the starch first into dextrin No. 1, then No. 2, then No. 3, and finally over into maltose. So, cooking starches at a high temperature improves their digestibility.

Dextrinized foods are usually recommended for people who have a high degree of acidity in the stomach, because the saliva is alkaline in reaction; and the alkalinity of the saliva is neutralized by the acidity of the stomach in a very short time after the food passes into the stomach. When the food reaches the stomach, instead of the saliva being neutralized in about half an hour, as it should be normally, it is neutralized perhaps in ten, or in fifteen minutes; so that the saliva that was mixed with the starch food in the mouth does not continue to act in the stomach, because there is too much acid there, and the saliva will not act in an acid medium. We give such a patient dextrinized food for the reason that it is very much more quickly digested than starch in any other form.

Baked potato is more easily digested than boiled, for the reason that the baked potato is cooked at a temperature of at least 300° F., while the boiled potato is cooked in the kettle at a temperature of 212° F., and that is not sufficient to convert the starch into dextrin. This principle applies to all undextrinized foods. The dextrinized foods here at the Sanitarium are zwieback, breakfast toast, the flaked foods, and the crust of bread. The housewife can make this in her own home if she wishes, by simply cutting

the bread into slices and putting them back into the oven and rebaking them. The word "zwieback" really comes from the German word meaning twice baked.

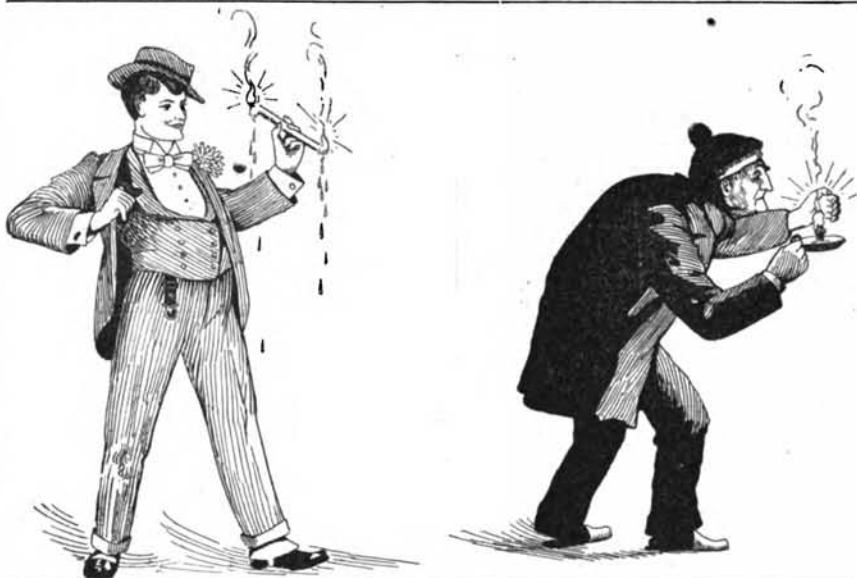
AN EMINENT BRITISH VISITOR

(Continued from page one)

enthusiasm of its devoted and respected superintendent, Dr. J. H. Kellogg, who lost no opportunity of instilling into me the conception that a correct diet was at the root of all remedial therapeutics. I was soon made to realize this in a most practical form, for on resorting to the entrance bureau the sorting-out physician put me in the way of standing my three days' trial which was the common lot of all patients and was intended to dis-

cover the misdeeds of their former diet on their physical condition. Furnished with a booklet to record the various items of the therapeutic onslaught on his physical weakness, the newcomer is placed at a special table in the dining-room and provided with a careful diet which is not only sterile but free from uric acid, urea, creatinin, and other tissue wastes.

The consumption of every separate item of his food and drink is carefully supervised by a special attendant, who punctiliously demands the most rigid observance of this restricted diet. On the second day a slight relaxation in the severity of the diet is permitted by the addition of two and a half drams of common salt; but do not imagine for a moment that this is in the way of a sop to the much grieved stomach. Oh, dear,



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no! it has the usual and inevitable object of making some clinical discovery; in this case the permeability of the kidneys. Not content with the information derived from these facts, the stomach is pumped after a test breakfast and its contents carefully measured and analyzed, every grain of the excretions is collected and conveyed surreptitiously to the chemical laboratory, a drop of the blood is drawn to see if that is up-to-date, and every conceivable method of analysis and research known to modern science is adopted to enable a correct estimate of the physical capacity to be made.

The principle underlying this examination appeared to be that as the suffering body had arrived at its parlous condition by straying from the paths of physiological rectitude, the true method of recuperation consisted in compelling it to retrace its footsteps along these same paths.

The crowning glory of the whole system of course culminated in the dining-room, and no doubt the readers of this journal would like to know something more about the dietetic methods in vogue in this establishment. As every one knows, nothing in the way of fish, flesh, or fowl, tea, coffee, or cocoa has been admitted within the Sanitarium doors for many years; hence fruit, nuts, and cereals, with a moderate supply of eggs and dairy produce constitute the dietetic system in vogue. Its cardinal feature, however, is the system whereby it is made profoundly easy to estimate the exact quantity of food consumed by each person. For this reason each item on the diet list is supplied in "portions" of known caloric value and weighed with nearly as much care as the pharmacist dispenses his drugs. Each "portion" consists of one hundred calories, so that if a diet of two thousand one hundred calories be prescribed, then twenty-one "portions" of food spread over the three meals of the day may be consumed. The menu provides accurate details not only of the weight of each portion but of its respective protein, fat, and carbohydrate contents, and thus it is easy to estimate the precise number of calories of each of these three materials consumed each day.

Dr. Kellogg is a strong supporter of the low protein theory and considers that no person should eat more than ten per cent of protein, thirty per cent of fat, and sixty per cent of carbohydrate in his diet. About seven hundred calories are consumed at breakfast, nine hundred at the one o'clock dinner, and six hundred at the six o'clock supper. The diet is not only antitoxic but purin-free, but differs from the system bearing this designation in its low content of protein, which works out at six grains per pound of the body weight, as contrasted with nine grains in the purin-free diet. Dr. Kellogg is of opinion that autointoxication is not the result of the ingestion of purin but proceeds from the excess of protein whether absorbed into the circulation or left to putrefy in the lower bowel. In the former situation it is rapidly excreted as urea and uric acid to the great detriment of the liver, kidneys and other antitoxic organs; in the latter position it becomes the prey of the protein feeding microbes with the consequent evolution of

great quantities of poisonous by-products, which are capable of being absorbed, and are liable to produce exhaustion, headache, rheumatic pains, and other deleterious effects. As these proteolytic microbes are kept in check by the growth of the germs which feed upon the remnant of the carbohydrate food, protein is administered in such a small proportion that no residue is likely to be left and practically no poisonous products are likely to be formed, and saccharolytic microbes in the shape of lactic acid bacilli or "yogurt" buttermilk, are supplied with the object of overpowering the harmful microbes. The evidence obtained by chemical research makes it pretty certain that this object is attained, as poisonous chemical principles rapidly disappear from the urine and feces under this regime. The diet therefore is essentially an antitoxic one.

This extremely brief description very inadequately represents the work of an institution at the forefront of dietetic reform, but it will have attained its object if it succeeds in introducing its methods of estimation to the notice of diet reformers in this country.

QUESTION BOX DEPARTMENT

EACH Monday evening Dr. Kellogg conducts a Question Box talk in the Sanitarium parlor, where all guests and patients are at liberty to submit questions relating to health and health topics.

Q. Does spinach act like colax and other coarse materials in promoting peristalsis?

A. Yes, spinach is very good for that purpose.

Q. Why is malted nuts an antitoxic food when it contains such a high percentage of protein?

A. Because the protein is vegetable protein, and because it contains a large amount of maltose which is highly antitoxic.

Q. What is the cause, effect, and cure of intestinal autointoxication?

A. Briefly stated, the cause is putrefaction in the intestine, and the effect is chronic disease, and misery indescribable; and the cure is the antitoxic diet and keeping the bowels active.

Q. What is the difference between the fluid extract of *Cascara sagrada* and the pure stuff?

A. It is practically the same thing.

Q. What is the first cause of rheumatism? Is it caused from improper food combinations?

A. The putrefactive process. Beefsteak is the cause of rheumatism. Rheumatism is a beefsteak disorder. As an eminent Chicago physician at the last meeting of the American Medical Association said of ulcer of the stomach, "It is a beefsteak disease; it is a meat eater's disorder." The same thing is true of chronic rheumatism.

Q. Do you think that neuritis or nerve rheumatism can be cured or practically so by strict adherence to Sanitarium principles after leaving the Sanitarium much relieved of the disease?

A. Yes, I think a cure may be effected, but not by diet or by the habits of life, but by the curative power which is in the body, acting under favorable conditions.

Q. What is best to be done when there is habitual nausea?

A. The thing to be done is to get rid of this irritation of the stomach. A fomentation followed by a moist abdominal bandage over night is a very excellent remedy, and great care must be taken in masticating the food. Such a condition is usually relieved promptly by very careful attention to the diet, and cured in a reasonable length of time.

Q. Is iodine applied externally a rational treatment for arteriosclerosis?

A. No, it amounts to absolutely nothing.

Q. Have you any pellagra here, and to what is it due?

A. The general opinion about pellagra is that it is due to corn which has somehow undergone some kind of fermentation; that is, mouldy corn. But this is not true. Some people have been found to have pellagra who

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Applicants received whenever vacancies. The next class will be organized the first of April, 1910. For full information address

Sanitarium,

Battle Creek, Mich.

did not eat corn. It seems to be a somewhat unsettled question as yet. We have had one case here in this institution, but this case was imported. The disease, I believe, is curable, indeed, I know it is curable, because a large per cent of the people get well without any treatment at all.

Q. What effect has smoking on the heart?

A. Smoking is injurious to the heart. Nicotin is recognized as a heart poison. I think a statement was made some time ago that nine-tenths of all the people who were rejected by the recruiting officers were rejected on the ground of weak heart from smoking. A man who is a professional runner never smokes, or at least he never will smoke when he is in training.

Q. Please tell us what will cure sleeplessness, and what will break the habit of waking up at the same hour every night?

A. First, earn the right to sleep, by honest work, and by making your peace with the world; make sure there is nothing in your mind to trouble you. And the next thing is to go without your supper; or if you eat supper, eat nothing which requires a long time to digest. A supper of stewed fruit with rice, or some simple thing of that kind, will digest easily, but a supper of bread and butter, cake, pie and things of that sort will take hours for digestion. If you want to have an easy time in your stomach at night, do not eat bread and butter for supper. It requires three and a half to four and a half hours, or five hours to digest bread and butter; whereas boiled rice or rice flakes will be digested in half an hour to an hour.

Q. Where one can only obtain limestone water, is it well to drink of it freely?

A. I am not at all sure that any very great harm comes from the drinking of hard water. The water is nearly always hard. There are only a very few places in the United States where you can find water that is really soft. There is nearly always at least a little sulphate of lime or carbonate of lime in the water, because it passes through the soil, and you always find more or less lime in the soil. I am not certain that there is any disease that has been traced to the use of hard water. The fact is that water takes up such a small amount of lime that when it is taken into the body the portion that is in solution can pass right on in solution out of the body. The process of boiling will cause the precipitation of that part of the lime which is in the form of the bicarbonate.

Q. Are charcoal tablets a good thing for a person troubled with aepsia and gastritis?

A. When there is a state of intestinal autointoxication, the charcoal is sometimes a very good remedy. Professor Bouchard found that charcoal would diminish the toxicity of the intestinal contents. The charcoal tablets which are spoken of here contain a little sulphur, a good intestinal antiseptic; and charcoal and sulphur combined would be as good as anything I know of—better than any of the more powerful intestinal antiseptics.

ARRIVALS

FOLLOWING is the list of arrivals at the Battle Creek Sanitarium for the week ending February 6: Mrs. Edw. D. Jones, Mich.; Mrs. G. W. Magee, N. Y.; E. D. Penn, Mich.; Mrs. N. U. Clark, Mich.; Mrs. H. H. Mathews, Minn.; Miss Ada Meyer, Ind.; R. H. Potter, Sask.; Jacob Fisher, Ind.; Miss Helen Voegly and Mrs. E. A. Straub, Pa.; John R. Jones, David R. Jones, Jr., Iowa; Mrs. M. B. Lersch, J. W. Lersch and H. Lersch, Ohio; W. F. Grimes, Pa.; Dan L. Franke, Mich.; Mrs. Geo. H. Dayton and Jennie L. Dayton, Conn.; Aug. Rosenberger, Ind.; A. M. Gilfillan, Pittsburg; Mrs. R. E. Runke, Mich.; Louise Hemmeter, Detroit; Mary E. Henline, Ind.; Hazel Hannah, Chicago; Dr. Weston L. Seogoe, Pittsburg; C. T. Roberts, Detroit; Mrs. H. Berghoff, Ind.; Dr. J. A. Rene, Wis.; W. F. Pope, Chicago; C. R. Crom and Miss Grace Crom, Ohio; Hugh T. Tracy, New York; E. M. Kirkpatrick and wife, Idaho; J. L. Morgan, Pa.; M. L. Thackaberry, Chicago; G. S. Gilbertson, Des Moines; James Cover and John Cover, Ind.; Miss Belle Curth and Frank Curth, Mich.; Stafford Burgis, Mich.; Carrie M. Adams, Ohio; R. L. Andrews and J. W. Hamsher, N. Y.; Chas. Donovan, Iowa; F. B. Sedore, Tenn.; J. C. Barrows and Mrs. J. C. Barrows, St. Louis; Mrs. J. M. Lancaster, Neb.; Mr. and Mrs. H. B. Wintersmith, Ky.; Elias H. Prella and John Curtis, Ohio; E. B. Campbell, Pa.; Mrs. S. P. McPherson, City; S. M. Palmer, Pa.; P. H. Daub and wife, Ohio; Wm. E. Shaffield and wife, Mich.; Miss Fannie M. Merrill, Brooklyn; W. S. Edwards, Mich.; E. C. Gale, Minneapolis; Jno. C. Noe, Minn.; Mrs. Walter Brown, Ind.; W. R. Johnston and H. B. Johnston, Toronto; Z. L. White, Ohio; T. M. Smith, Ohio; Stafford Burgis, Mich.; G. H. Hyland, Ohio; W. A. Taylor, Ohio; Chas. M. Dow, N. Y.; Chas. R. Stevenson, N. Y.; J. W. McMillan and wife, Pa.; Geo. Micholson, Jr., and wife, Mich.; L. N. Dibble, East Hampton, Mass.; A. E. Copping, Mich.; A. L. Keller and Frank McElwain, Chicago; C. M. Stephenson, Ind.; E. H. Eggleston and Theo. H. Mann, Chicago; Thos. A. Lewis, Indianapolis; Miss Mae W. Siebert and Miss Mary Scarlett, Ohio; Miss Ella Cooper, Chicago;

Miss Carrie A. Bradley, Chicago; Oliver Moore, Mich.; Mrs. A. E. Copping, Mich.; V. L. Brown, Philadelphia; Miss Rilla Archer, Cleveland; W. B. Charles, New York; James W. Veeder, New York; H. H. Ashenfelter, Philadelphia; Mr. and Mrs. W. C. Stith, Mo.; Mrs. Chas. Anderson, Ill.; Mrs. C. L. Piercy, Mich.; Fred A. Gooding and wife, Minn.; Mrs. J. R. Richey, Ind.; Dr. F. J. Harlan and wife, Mich.; Mrs. D. W. Valentine, Kalamazoo; Mrs. E. D. Farnsworth, Minneapolis; A. B. Holbert, Iowa; C. A. Johnson, N. Dak.; Miss E. G. Friend, Tenn.; Mrs. W. C. Edwards, Mich.; L. H. Nelson, New York City.

News and Personals

Mrs. Chas. Anderson, of Oak Park, Ill., is visiting her husband, who is a patient in the institution.

Jas. M. Mead, of Rushville, N. Y., who was a patient at the Sanitarium forty years ago, is again with us.

Mr. Theo. H. Mann, of Chicago, spent Sunday with his wife and daughters, who are guests at the Sanitarium.

Dr. Mary V. Dryden, who was for some years connected with the Sanitarium medical staff, and is at present connected with the Attleboro, Mass., Sanitarium, will reunite with this institution on the first of next June.

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**The Battle Creek Sanitarium School
of Health and Household Economics**

**BATTLE CREEK
MICHIGAN**

E. H. Eggleston, of Chicago, has returned to his home after spending a few days in the institution.

Miss Fannie M. Merrill, of Brooklyn, N. Y., an old friend of the institution, is again with us, taking rest and treatment.

Miss Emily G. Friend, a graduate from our Nurses' Training School, is stopping at the Sanitarium, visiting old friends and acquaintances. Miss Friend is now employed as head nurse of the Woman's Hospital in Nashville, Tenn.

Dr. Carrie E. Staines has been for some months in attendance upon her mother at Fenwick, Mich. Recently the case ended in the death of the mother, and her many friends extend to Doctor Staines their sincere sympathy. She will now take a vacation and rest of four months before resuming her work in the Sanitarium.

We learn that the Doctors A. V. and E. M. Heynemann, who went from us to Edinburgh last summer, have passed their examinations in medicine and therapeutics, gynecology and obstetrics, medical jurisprudence, toxicology and public health before the Conjoint Board. They will take their examinations in surgery and surgical anatomy in April, after which they will receive their diplomas entitling them to practice in Great Britain and most of the British colonies. We congratulate them on their success in passing these examinations at the first attempt.

The Sanitarium School of Physical Culture is to receive valuable help in the person of W. W. Hastings, Ph. D., who comes to us from the celebrated training-school of Springfield, Mass. Dr. Hastings was for some years connected with the Nebraska State University in Lincoln. He will take charge of the Sanitarium school, and steps will be taken to put the school upon a grade at least the equal of the best of its class.

Geo. S. Ephraimoff, a native of Bulgaria, who was graduated from the American Medical Missionary College last June and has returned to his home-land, writes that he has obtained full recognition in that country as a physician and will enter upon the practice of his profession. We are glad to receive this good news and congratulate Dr. Ephraimoff upon his ability to pass the necessary tests to obtain this standing. This is also another testimony to the thorough character of the training received in this school.

The interest in the Sunshine Hour is steadily increasing. The only hour available for the Sunshine gatherings is in the afternoon, which has always been a very difficult hour for the assembling of any very large gathering, but the increased attendance and interest in the Sunshine hour indicates that in spite of the inconvenience a large number of patients like to avail themselves of the opportunity afforded in this hour. The programs for this hour take up the principles of the Sanitarium methods and show how lives can be made to be healthy and

happy. The thirty-minute talk given by Doctor A. C. Dixon last week was greatly appreciated and was an inspiration to the large number who attended on that day.

A lady patient, in departing for home the other day, left the following note concerning the Sunshine hour: "Before I leave I want to express the great pleasure the Sunshine hours have given me. The talks were so full of good sense and good cheer, so hopeful, and at the same time so keen and discriminating that each one stands out in my memory like a bright spot. I am trying to live up to the sunshine teachings you gave. They well illustrate a saying I took for my own many years ago: 'Count that day lost whose low descending sun sees at thy hand no kindly action done.' All the daily life here I enjoy to the utmost, indeed I am so full of enthusiasm that I think I could fill a sunshine hour myself on the topic, 'How I came to acquire the Battle Creek Habit;' but most of all, the kindly spirit of those all too brief talks will help to keep the sunshine in my heart."

The interest in the Sanitarium Sabbath school is increasing, as shown by the attendance and apparent interest taken by the members of the various classes. The Sabbath school not only provides a Sabbath school home for those who are away from their home church privileges, but also welcomes any who, while resting at the Sanitarium, would feel it a privilege to visit the Sabbath school and become acquainted with the work done in this school.

Battle Creek Sanitarium School of Physical Education

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Mr. Horace Fletcher will give a course of lectures on vital economics, and Mr. John F. Stapleton, formerly of the Yale Gymnasium, a special course on theory and practice of Swedish gymnastics.

The next regular term (new class beginning) opens January 3, 1910.

Any who are interested will be sent illustrated announcement with further details on request. Address:

The Battle Creek Sanitarium School of Physical Education
BATTLE CREEK, - - - MICHIGAN

THE BATTLE CREEK IDEA



Vol. III No. 11

BATTLE CREEK, MICH., FEBRUARY 18, 1910

Price 2 Cents

The Sanitarium Dispensary

How the People are Cared for by the Dispensary—Visiting Nurses and Distribution of Food

THE work of the Sanitarium Dispensary is constantly growing in the proportion of its

Affections of the Eye

Dr. J. F. Byington Answers Sundry Questions in a Recent Lecture in the Parlor

ON a recent evening Dr. Byington, who conducts the eye, ear, nose and throat de-

Appetite Juice in Digestion

Food Must be Relished—The Gustatory Sense is Not to be Neglected

IN the first place, I will mention the familiar fact that there are five digestible food



THE DISPENSARY DOCTORS AND NURSES

ministry to the sick and suffering who are unable to procure for themselves the attention they require. Battle Creek is not regarded as a poverty-stricken town by any means. There are comparatively few dependent people, as there is usually an abundance of work at good wages, and so there is a general air of prosperity apparent in the town.

But it has been said very truly, "The poor ye have always with you, and when you will you may do them good." We have but to
(Continued on page three)

partment of the Sanitarium, held a Question Box lecture on his specialties. We give in the article the questions and answers relating to the eye. We hope to give others of the series.

Q. What is the best method of massaging the eye so as to retard its becoming flatter?

A. This question suggests a very prevalent, but erroneous, idea as to the cause of failing vision in old age. No doubt our high school physiologies are in part responsible for this
(Continued on page five)

elements—starch; albumin, fats, sugar, and salts; and five digestive fluids secreted by five digestive organs—the saliva secreted by the mouth, the gastric juice by the stomach, the bile by the liver, the pancreatic juice by the pancreas, and the intestinal juice by the small intestine. Everybody ought to know these simple, elementary facts in relation to digestion. As to the processes of digestion, we can not really understand much about them. It is a mystery. We know some of the things that digestion accomplishes, but

we do not understand how they are done. Let us see what are the things that are done.

If we chew a bit of dry bread in the mouth, and chew it long enough, it becomes sweet and very toothsome. Dry bread becomes sweeter the longer it is chewed. The longer flesh is chewed, the less flavor it has; but the longer bread is chewed, the more flavor it has, the sweeter it becomes, because the saliva converts starch into sugar; so that we have a sugar factory in the mouth. Accordingly we do not need to add much sugar to our food. The idea of adding sugar to oatmeal, for example, is like carrying coals to Newcastle. Oatmeal is mostly starch, and starch is converted into sugar before the process of digestion is complete; so it needs no added sugar.

The next food element is albumin. Albumin is digested in the stomach by the gastric juice, it is converted into peptone, and this peptone, when it is absorbed, stimulates the stomach to make more gastric juice. It is very important that there should be some gastric juice in the stomach to start the process. If there is no gastric juice in the stomach when the food arrives there, it is not likely to be secreted later on.

Gastric juice is produced in the stomach by the effect of food in the mouth. When food is chewed properly it stimulates the gustatory nerves which excite certain nerves that cause the stomach to pour out gastric juice, and the gastric juice is already in the stomach when the food comes down, provided the food has been properly chewed.

But suppose one bolts his food. That means that the food goes to the stomach without proper mastication, and the stomach has no opportunity to get ready to digest it. The preliminary gastric juice is not produced unless the food is chewed long enough to develop its flavors and to give the stomach time enough to produce the gastric juice. This discovery was made by Pawlow, the great St. Petersburg physiologist. I visited him a couple of years ago, and I saw the dogs upon which he made the classic experiments that have made him the greatest physiologist of the age. Professor Pawlow named this juice which is produced in the stomach before the food is swallowed, as a result of the flavor of the food, "appetite juice." If one has no appetite for food, or does not relish his food, he gets no appetite juice, and stomach digestion is thus impeded.

So it is very important that food should be served in such a way as to be relished. That is the reason why, if one does not relish food, it makes one sick, it goes against one. The reason is that nature is protesting. There is no gastric juice down there to start the process of digestion, and unless there is, we can not go on at all, because it is necessary, as Pawlow says, to have some igniting juice in the stomach, and this is produced reflexly by the stimulation of the food upon gustatory nerves in the mouth.

There are lessons for cooks in that. It is important for them to know that if they do not serve food in relishable form, those who eat may have dyspepsia as a result of it, for the stomach will not be prepared to digest the food unless it is relished. It is a great deal better that food should be relishable

than that it should be so very easily digestible.

We did not know formerly what we know now, that it is necessary to relish food if it is to be easily digestible. It stands to reason that the stomach will have less work to do if it has food that is easy to digest rather than food that is hard to digest. Boiled rice, for instance, will digest in one hour. It is the most easily digestible of any food known except foods that require no digestion at all. A nice, ripe apple digests in about an hour and a half to two hours. But pork or ham requires five hours and a half. Fried eggs are almost absolutely indigestible; and omelets and things of that kind are hard to digest; mince pie, fried sausage and abominations of that sort, and stewed lobster, deviled cheese, crabs and things like that, which require perhaps anywhere from six to ten hours to digest, while some of them do not digest at all. Food ought not to require more than three or four hours for digestion.

As to the process of stomach digestion, the food is swallowed into the cardiac portion of the stomach, and there it works around and around. The muscles of the stomach contract upon it and keep working it, and the gastric juice flows out from innumerable little ducts in the mucous membrane and mingles with the food on the outside of the mass and gradually reduces it to liquid form. In the interior of the mass, the saliva continues to act upon the food and convert starch into sugar, while the gastric juice, acting upon the outside, converts the albumin into peptone, and as the food is liquefied the cardiac part of the stomach is continually forcing the liquid out, and it passes into the pyloric part of the stomach. There is a muscle between these two portions which contracts, dividing the stomach into two parts, the cardiac stomach, and the pyloric stomach. They have different functions, and each portion of the stomach acts by itself. The liquefied food is in the pyloric portion, and the stomach contracts and forces the liquid out through the pylorus and then it goes on down into the small intestine and the process of digestion continues there.

In the small intestine the starch is acted upon by the pancreatic juice, and further down by the intestinal juice. Some of you have experienced difficulty occasionally with a little rising of something sour into the mouth, and of gas coming up into the mouth from the stomach. The doctors used to say it was due to fermentation; that the food had soured in the stomach. That is entirely a mistake. Some folks say, "I can't eat starch," or, "I can't eat corn flakes, or rice flakes, or wheat flakes—any sort of flake foods or breakfast cereals, because they sour on my stomach." That is the greatest possible mistake. These foods do not sour or ferment at all. The difficulty is that considerable acid is formed in the stomach, and the acid causes spasm of the pyloric muscle and that makes it impossible for the food to escape; and as the stomach contracts in its effort to force food through the pylorus, some of it comes up into the mouth; and the sourness you taste is the acidity of the gastric juice.

This difficulty is easily remedied. All you

need to do is, instead of bolting your food, to take pains to chew it, to masticate it very thoroughly. Avoid fermented breads, and eat your cereal food dry in the form of dextrinized cereals, like corn flakes, rice flakes, and wheat flakes that have been well toasted; have them toasted a little extra, perhaps in the oven, so they will be nice and brittle when you eat them, and they will be crisp in your mouth, and chew them thoroughly well until they are reduced to pulp. It is usually well to take along with these cereals a little rich cream or butter, because it will have the effect to prevent gastric juice being formed in such excessive quantity. A person who has sour stomach needs to take a considerable amount of fat.

The pancreas is, above all other organs, of importance in the process of digestion. A man can live without the salivary glands; he can live without mastication; he can live without his stomach. I had a letter the other day from a man who left his stomach here when he went away, and he said he weighed 185 pounds and enjoys better health than he ever did before in his life.

Dr. Moynihan, of Birmingham, England, has removed the entire stomach and attached the small intestine on to the esophagus. Ordinarily a little bit of the stomach is left, enough on which to join the intestine; but in some cases even that could not be done. The pancreas is the most important of all the digestive organs, because it makes a juice which is capable of digesting all the digestible food elements. It digests starch better than the saliva does. Some will say, "What is the use in masticating the food so thoroughly if the pancreas will digest the starch?" The reason is that food must pass by the stomach. The stomach is the antechamber into which the food goes to be disinfected and reduced to liquid; and in order that the pancreas should do its work properly, the food must pass through the stomach to be liquefied and prepared for the work of the intestines. The food is made up chiefly of these three elements—the starch, albumin and fats.

Now, the fat becomes liquid at the temperature of the body; the albumin is dissolved by the gastric juice; the starch is utilized in part, having been digested by the saliva in the mouth and stomach, so in this way all the food elements are reduced to liquid form, so they can readily pass out of the stomach. If the food is not masticated thoroughly enough and does not get enough saliva mixed with it to reduce it to the proper form to be acted upon by these digestive fluids, then the food remains in the stomach a long time in undigested lumps, and the result is the stomach is excited to secrete too much gastric juice, and that is one of the principal causes of hyperacidity; the food is retained too long, because the pylorus shuts up tight and will let nothing but liquid through it. So that the presence of the pancreas is no excuse for not masticating the food thoroughly.

The pancreatic juice makes sugar out of starch as the saliva does, and the intestinal juice also makes a small amount of sugar from the starch. So there are three provisions for making sugar in the body,—the

saliva, the pancreatic juice, and the intestinal juice. After the pancreatic juice, the bile comes down from the liver. It is stored up in the gall-bladder, and flows down the bile duct into the intestine. The bile digests fat, converts the fat into soap, and the soap is dissolved in water and absorbed, and in that way gets into the blood, and is utilized for making fat and supporting the strength of the various tissues of the body.

So these five digestive juices have their several duties to perform, the saliva, the gastric juice, the pancreatic juice, the bile and the ferment secreted by the intestine. Silently and hidden they do their part in the process of digestion, preparing the food for its absorption into the blood, by means of which the marvelous man-structure is built up and maintained. And although the process of digestion, with those of respiration, circulation and other vital functions, go on independently of our will; by proper mastication and the careful selection of those foods only which are most easily and completely acted upon by the body juices, we may do much to assist these unseen forces whose perfect work is so necessary to our health and well-being.

THE SANITARIUM DISPENSARY

(Continued from page one)

look around us, wherever we may find ourselves in this world, in order to discover those whom we may help if we will. So here in Battle Creek, those who have their eyes open to such cases may easily discover those who are in dire need of medical attention, and some are suffering for food and for fuel. Others are struggling along, barely able to procure the necessities of life in a cold winter, with no means for obtaining the ministrations of doctor and nurse.

In our illustration on the first page of this paper we show the present staff of medical workers connected with the Sanitarium Dispensary. The gentlemen standing are Doctors J. T. Case and Benton N. Colver, and the head nurse, Miss Mackeracher, stands between them. Dr. A. W. Nelson should also have appeared in the picture, as he takes part in the labors. But he was unfortunately absent when the picture was taken.

The dispensary and treatment rooms are located in the south end of the College building, the men's treatment rooms being in the basement and the women's apartments on the first floor. The work of this department is not exclusively for the indigent and helpless poor, but it also ministers to the wants of those who are to some extent able to pay for what is done for them. But no one is refused on account of inability to pay or for any other reason, provided they are in need of assistance. The medical attention and treatments given in the dispensary department are equal in quality to that given in the best apartments. In addition to the medical work, food distribution is also made to those who are in need of such assistance. The good food left from the Sanitarium tables is carefully preserved and assorted and packed in nice clean baskets and sent out over the city.

The visiting nurse in charge, Miss Isabel

Mackeracher, says of the work in the dispensary: "We started the year 1909 with a list of fifty-four families, a number of whom required daily attention, while others were visited once or twice a week. During the year 289 homes have been visited, and 1,760 visits have been made. We start in 1910 with a list of 120 families, and the greater number of the patients are very ill. During the past year there was an increase over the previous year of 1,317 bath treatments, 1,387 consultations, 417 examinations, and almost all the

Laboratory tests	625
Surgical dressings	1460
Operations	83
Bathroom treatments	5447
Massage	192
Arc light	1357
Out Work	
Doctor's visits	588
Nurses' visits	1760
Families visited	289
Home treatments	481
Garments distributed	1293
Families assisted by food direct.....	222



DR. A. W. NELSON IN "GERM-INY," SANITARIUM LABORATORY

items of work increased in similar proportions."

Special treatments in electricity is a comparatively new feature of this work, and over one hundred of these have been given. The following table gives various items of the dispensary work for the year 1909:

Inside Work	
Patients enrolled	510
Consultations	4488
Physical examinations	661

Orders for food sent to Food Dispensary	134
Laboratory tests	625

The following is a report of the work done at the Food Dispensary connected with the Sanitarium, for the five months ending February 1, 1910:

Total number of baskets of food given away	2740
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(Continued on page five)

The Battle Creek Idea

PUBLISHED WEEKLY AT
BATTLE CREEK, MICHIGAN

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One Year	- - - -	\$1.00
Six Months	- - - -	.50
Three Months	- - - -	.25
Per Copy	- - - -	.02

VOL. III FEBRUARY 18, 1910 No. 11

THE BATTLE CREEK SANITARIUM IN COURT

HERETOFORE we have purposely refrained from making references to the case at law which the municipality of Battle Creek has been for some years prosecuting against this institution. Now it seems expedient, for our own sake and the sake of our friends, that we should allude to it. Our readers are aware that the Calhoun County Circuit Court has rendered a decision that is adverse to the Sanitarium. This case is one in which the Sanitarium was charged with having exceeded its rights under the statute as a charitable institution. It is not claimed that the charter of the Sanitarium has been overstepped, but that the charter itself is too broad for the statute under which it was drawn.

It is very noticeable that Judge Parkinson, before whom the case was tried, has reached his conclusions only after prolonged and careful deliberation. It is no part of our purpose to review his decision or to criticize it. He has evidently sought very candidly for the right solution of the case. It is not necessary to state that the Sanitarium accepts his analysis of the case, or his opinion as to what constitutes a charitable work, or his conclusions as to what constitutes a violation of the law in the matter. The Sanitarium feels itself in duty bound to do all in its power to vindicate the stand it has taken before the world all these years as a philanthropic, and therefore charitable institution carried on solely in the interest of the sick and suffering who come here for treatment, and for the far greater and broader work of educating the world at large in better ways of living. It will not readily yield this claim and confess itself an imposter and a hypocrite, not even for the purpose of avoiding the disagreeable and inconvenient consequences of a misapprehension of its true character.

We are cheered by the evident sympathy and consideration expressed by the court in its unfavorable decision. There is no callous severity in the terms of the document. The judge says: "Counsel are well aware that I

am, and throughout the trial have been, reluctant to render judgment of ouster." But to him it seemed that the unwillingness of the respondent's counsel to admit the illegality of certain or any portions of the work done by the Sanitarium left him no alternative. Speaking of what he regarded the abuse of its legal privileges by the Sanitarium, Judge Parkinson said: "This should be understood as an abuse in the legal sense strictly. In themselves, none of its purposes, objects, methods, are to be condemned by me. They are only likely, worthy, commendable, and useful, but are not such as an institution organized under this particular statute are intended to conserve, as I construe it."

Further on the judge says: "The statute in question has not been interpreted or construed by the supreme court in reference to the questions here presented. My views as to that statute and as to the right of the respondent or the want of right thereunder may not be upheld." Consequently the decision closes with the suggestion that the supreme court be asked to review the matter, and stay of proceedings to permit of this has been granted.

As a commercial enterprise merely this institution has no particular attraction for or hold upon those who are carrying it forward. If the court shall finally deny that it is what it claims to be, and if it is to be placed by the courts upon a purely commercial basis, it will lose its charms for those who have for years labored to build it up. We desire to have it thoroughly understood that the management will not willingly surrender this splendid establishment to the State. There is no purpose on the part of those who have this work in their hands to abandon this magnificent work,—one of the most beneficent institutions to be found in the world to-day, a center of light and knowledge, a leader in medical progress and one of the most potential agencies in the relief of human sufferings in operation. If we go hence it will be because we are ousted by the demand of the people of this town and the authority of the law.

But with the most of us, at least, principles are of more value than sentiment, and we shall not willingly surrender our God-given ministry of working for the good of humanity only. A kindly Providence has cared for this work hitherto, and if we still deserve that guidance and protection it will be vouchsafed to us still. If in the minds of the people of this city we have become undesirable, others are calling for us, and if we must we can rebuild. The Sanitarium has many warm friends in Battle Creek, men of influence and good discernment, men who can understand that it is possible for men to

carry on a work from purely philanthropic motives; while it is evident that some of the citizens have no conception of such a thing being possible. At the present juncture it is impossible to predict what the future may have in store for the Sanitarium in Battle Creek. We earnestly hope that good counsels may prevail, and that this work may be permitted to go on to the full accomplishment of the designs God had in its establishment; just how this will be brought about we are simply waiting for events to indicate.

THE HIGH COST OF LIVING VS. THE COST OF HIGH LIVING

THE cost of living is at the present time a question of all-absorbing interest, and is claiming much attention from economists, philanthropists, magazines, and the newspapers in general. Indeed, the interest has become so intense and universal that Congress has moved in the matter by the appointment of a commission to investigate the cause of the unprecedented and seemingly unwarranted rise in the prices of the necessities of life. People of ordinary means begin to look with alarm as to where this may end, and indeed they well may do so. It seems to be quite firmly wrought in the convictions of the public that trusts and combinations are very largely chargeable with the great advance on all the commodities of life. This may prove on further investigation to be more or less true, but it is evident from the briefest reflection that there are other causes also which operate in the matter of boosting the prices of living commodities.

In the first place, people are not satisfied with the simple modes of life which prevailed a few years ago. Luxury has taken the place of necessity, and in all the matters of house-furnishing, table furnishing, dressing, etc., there is an unwonted and uncalled for extravagance, a tendency toward that voluptuous life which has proved the downfall of many peoples in the past.

One of the first things that the Congressional inspectors ran into was the unsavory dishes served up to fashionable society in Washington. From a current dispatch of recent date we gather the following:

"Ripe" meat is the "swellest thing" in the line of diet among certain fashionable people in Washington. Unless it is ready to fall

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to pieces, the real "nobs" of the smart set won't eat it at all. This sort of meat was served at the White House during the Roosevelt administration, according to the testimony given to-day by Food Inspector Dodge before the House Committee on the District of Columbia, which is trying to find out why it costs so much to eat in the capital city. Dodge testified that one day when he was about to condemn a big chunk of bad beef the butcher begged him to hold off. "There's a footman outside waiting for a roast off that meat right now," said the beef seller.

It is perhaps just to say that the White House steward indignantly denied the assertion of the government officer, so that each one is left to choose his own opinion as to the application of this unsavory comment to the ex-president, but certain it is that strange ideas of what constitutes good living prevail in the world, and they are not confined to any particular branch or department of society. High living calls for high prices.

THE SANITARIUM DISPENSARY

(Continued from page three)

Number of baskets delivered to homes of the poor	60
Total number of visits to the homes of the poor	78
Total number of meals furnished at the food room	50
Total amount of money given to help families	\$10.00
Fuel furnished to the poor	\$ 6.00
Number of garments given away	120
Number of boys' suits complete (new) given	35
Number of barrels of zwieback and broken rice biscuit	5
Number of articles of furniture (old) ..	15
Number of pieces of carpet and matting	10
Number of barrels of cut and broken bread	110

Lewis C. Leake, the superintendent of this work, says: "The dispensing of food in the past has been a blessing to many worthy ones; especially this winter we have come to the rescue of several poor families, and we hope in the future to be used more abundantly than we have in the past in doing good in the Lord's name."

THE AILMENTS OF THE EYE

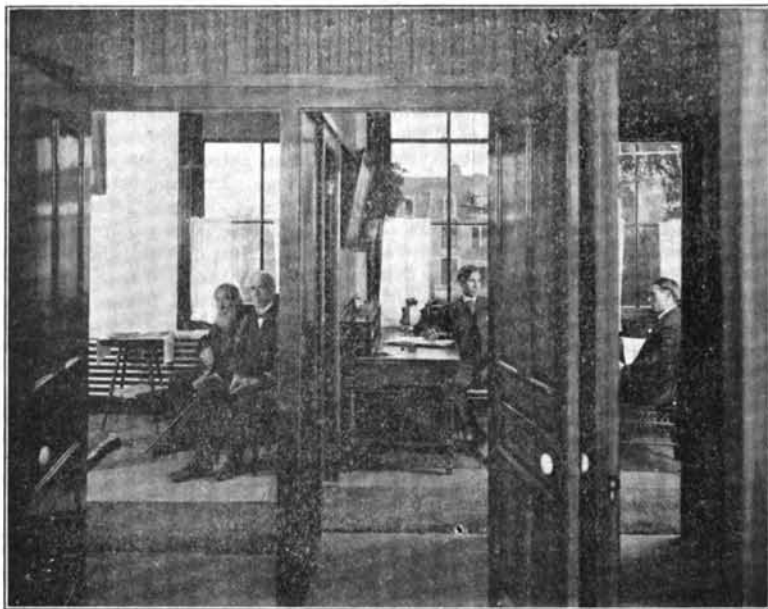
(Continued from page one)

error. We have been taught that in very young persons the eyeball is too long anteriorly; in other words, that it is near-sighted, and as a person becomes older the eyeball becomes flatter and flatter, that it becomes more and more far-sighted, making the use of convex lenses necessary for reading. According to this idea, if one could only find some means of preventing the eyeball from becoming flatter, he could do away with the necessity of wearing reading glasses, or at least postpone their necessity until a much later time. Accordingly a number of devices have been advertised for massaging the eyeball and manipulating it in such a way as to make it longer. It is possible this massage

may be of some benefit in improving the circulation of the eye, but it is erroneous to assume that it will prevent the changes which occur in every eye with advancing age.

As a matter of fact, the eye is not commonly too long in youth, and it does not tend to flatten, even if it is. The great majority of children are born far-sighted, with too short eyes, and as the eye develops, if there is any change, it almost invariably becomes longer, less far-sighted, or even so long that it is near-sighted, and this tendency continues throughout life, if there is any tendency for it to change in length at all.

But it may be asked, Do not elderly people require the use of convex lenses, which would indicate that their eyes are too short, for convex lenses help to bring the focus of rays of light entering the eye farther forward? To answer this, it will be necessary to distinguish between far-sightedness and old sight. In far-sightedness the eyeball is too short, rays of light entering the eye are focused behind the retina and convex lenses are required to bring the focus farther forward. A young person who is far-sighted wears convex lenses both for near and distant vision. In old sight the eyeball may not be too short,



THE DISPENSARY OFFICE AND WAITING-ROOM

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but the eye has lost the power to accommodate. In other words, it can not be focused on objects at different distances from it. The eye may see objects at a distance perfectly without glasses, which would be impossible if the eye were too short; but small objects near by, for instance, letters at the reading distance, are blurred without glasses. Old sight is not a flat eye, but an eye which has lost the power to focus itself upon objects at different distances from it. This is due to a hardening of the crystalline lens of the eye. In youth the lens is very elastic and may change its convexity, and consequently its focusing power, so much that a child ten years of age can see perfectly the finest print three inches from the eye. At the same time, he may see perfectly at a distance. From this age on the lens of the eye gradually becomes harder, which so interferes with the focusing power of the eye that at twenty years of age the nearest point of distinct vision in the normal person is about four inches. At thirty years of age it is about six and a half inches; at forty years of age, about ten inches, and at forty-five years of age the near-point of distinct vision has receded to about the reading distance, so that at this age the majority of persons require glasses for near vision, while their vision for distance may be perfect without glasses. At about sixty or sixty-five years of age the focusing power of the eye is completely lost on account of the lens having become wholly sclerosed or hardened.

Q. Does not second sight imply marked deterioration of the eye in sympathy with the general advance of old age?

A. Yes. Second sight does not indicate the return of youthful conditions. In other words, the eye has not regained its power to focus upon objects at different distances from it. In second sight the lens, through loss of water, becomes more dense, and consequently it acquires a higher index of refraction, and thus is able to focus rays of light from near objects upon the retina without the aid of convex lenses which have previously been required for near objects. But what the individual gains for near vision he loses for distant vision. No person over seventy years of age can see distinctly objects both at a distance and near by without the aid of glasses. The individual with second sight is near-sighted. He can not see distant objects without the use of concave lenses.

Q. What causes optic neuritis, and what do you consider the best remedy?

A. Optic neuritis is an inflammation of the optic nerve, and this is almost invariably due to some general disease. The interior of the eye is one of the signboards as to the general condition of the body. There are a number of diseases, such as tumor of the brain, Bright's disease, arteriosclerosis, and various affections of the central nervous system, which are often first discovered by the oculist who is making an examination of the interior of the eye with his ophthalmoscope. The only treatment of optic neuritis generally is the treatment of the general condition lying back of it, although it is possible for a mild form of neuritis to be caused by an over-use of the eyes without the aid of glasses in per-

sons who require the use of glasses. In such cases wearing of properly fitted glasses and the moderate use of the eyes may be of benefit.

Q. My tear ducts are nearly stopped up, especially when I have a cold in the head. Is there any permanent cure for the excessive watering of the eyes in this condition?

A. The eye may water from one of two causes: either an excessive secretion of tears or a damming up of the sewage system of the eye by some obstruction in the tear ducts. If the eye habitually waters there is usually some obstruction in the tear duct which conveys the tears into the nose. This may be due to catarrhal conditions, polypi or other growths in the nose, or it may be due to an irritation or inflammation in the lining membrane of the duct, due perhaps to irritating substances passing through it. Mild cases may be relieved simply by the use of mildly astringent antiseptic eye waters, such as the following: Zinc sulphate, one-half grain; boracic acid, ten grains; water, one ounce. More stubborn cases require a long course of probing of the duct to enlarge it. A single treatment of this kind is seldom of any permanent benefit, but treatments may need to be continued for some weeks or months. In severe cases in which, following the improper use of a probe, the scar tissue has completely closed the duct, the best remedy may be the complete extirpation of the lachrymal sac. Experience has shown that after the removal of a lachrymal sac there is less secretion of tears, and there is much less watering and inflammation in the eye than with the sac left in the eye. Of course, in either condition, with the obstructed sac in or with it out, there is no escape of tears into the nose; but with the sac out we do away with the infected sac, which is only a cesspool of pus which constantly irritates the eye and keeps it inflamed. Consequently, in answering the question, we might say that no matter how severe the case of obstructed duct is, it may be cured; that is, the eye may be rid of this very dangerous source of infection.

Mr. A. J. Steele, for the past year superintendent of the City Rescue Mission, has resigned his position for the purpose of accepting a call from a larger work in Boston. Mr. Abner Spence, of Grand Rapids, for seven years an associate of Mr. Melville Trotter, has been chosen to fill the vacancy. Next Sunday will be Mr. Steele's last day at our Mission.

SECOND MEDICAL MISSIONARY CONFERENCE

We present the organization and program of the above inter-denominational conference, held at the Battle Creek Sanitarium, February 15, 16, 17, 1910:

President—REV. ROBERT HAMIL NASSAU, M. D., D. D.

Honorary President—BISHOP J. M. THORBURN, D. D.

Vice-Presidents—JOHN F. MORSE, M. D., REV. J. P. MCNAUGHTON, NATHAN S. HOPKINS, M. D.

Executive Committee

Chairman—JOHN H. KELLOGG, M. D.

Vice-Chairman—ROWLAND H. HARRIS, M. D., F. R. C. S. E.

Secretary—GEORGE C. TENNEY.

Associate Secretary—MRS. FANNY E. DOW-KONTT.

BENTON N. COLVER, M. D.; GEORGE E. JUDD.

Reception Committee

Chairman, A. J. READ, M. D.; MRS. JEAN WHITNEY-MORSE, M. D.; MISS ABBIE J. ALDRICH, ELMER F. OTIS, M. D.; MRS. M. S. FOY, MR. J. CLARK RIGGS, MISS CARIE ZAHN, MISS CHARLOTTE E. DANCY, MR. F. D. GOVAN.

PROGRAM

REGISTRATION OF DELEGATES.

CONFERENCE OFFICE:

South Corridor of Main Floor, Sanitarium.

12:30. Reception by the Sanitarium Staff in the Fifth Floor Parlor.

1:30. Dinner in the South Dining-room.

First Meeting—Tuesday Afternoon

3:00. Devotional Service in Sanitarium Chapel, led by BISHOP J. M. THORBURN, D. D.

3:30. Welcome to the Sanitarium, DR. J. F. MORSE.

Welcome to the City, REV. W. H. PHELPS.

Responses by REV. J. P. MCNAUGHTON and DR. NATHAN S. HOPKINS.

Address by the CHAIRMAN OF THE EXECUTIVE COMMITTEE.

Address by the PRESIDENT.

Medical Mission Work for Women in West China.

DR. GIFFORD KILBORN.

Observation of a Medical Layman in Massacre Regions of Turkey.

REV. L. O. LEE, D. D.

Second Meeting—Tuesday Evening

PREPARATION AND DEMAND FOR MEDICAL MISSION WORK

Preparation for Medical Mission Work.

N. S. HOPKINS, M. D.

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This institution offers a three years' course of instruction for women and two years for men. In addition to the usual subjects taught in hospital training schools, special attention is given to all branches of physiologic therapeutics, including hydrotherapy, radiotherapy, phototherapy, kinesotherapy, or manual Swedish movements, and massage.

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Applicants received whenever vacancies. The next class will be organized the first of April, 1910. For full information address

Sanitarium,

Battle Creek, Mich.

North India School of Medicine.
 DR. MARY R. NOBLE.
 The Functions of the Nurse in Foreign Mission Work.
 MRS. J. P. McNAUGHTON.
 The Why of Medical Missions.
 GEO. T. LEEDS, M. D.
 Medical Missionary Work in Siam.
 J. W. McKEAN, M. D.
 The Student Volunteer Movement and Medical Missionaries.
 MISS H. L. OSBORN.
 The Great Advantage of Western Medicine in China.
 STEPHEN C. LEWIS, M. D.
 The Value of Medical Knowledge for Women Missionaries.
 MISS M. HERDMAN.
 Need of Medical Missions in China.
 DR. MARIAM HEADLAND.

Third Meeting—Wednesday Afternoon

2:30. Devotional Service.
 Led by REV. B. F. TABER.
 THE MEDICAL MISSIONARY IN PRACTICE
 3:00. Trials and Triumphs of Medical Missions in India.
 A. W. WOODBURN, M. D.
 Diseases Common in South China and Medical Progress There.
 MARGARET GRANT, M. D.
 The Medical Missionary as an Evangelist.
 REV. T. S. JOHNSON.
 The Layman in Medical Work in India.
 REV. Z. T. GRIFFIN.
 The Philanthropic Side of Missionaries.
 MRS. ANNETTA T. MILLS.
 The Bubonic Plague.
 J. M. WATERS, M. D.
 Medical Work on a Frontier Station.
 MRS. E. H. EAST.
 Medical Missions as Related to the Moslem Problem.
 REV. J. P. McNAUGHTON.

Fourth Meeting—Wednesday Evening

MEDICAL WORK IN THE FAR EAST
 7:30. The Story of the Chinese Famine.
 REV. T. F. McCREA.
 America and Japan.
 REV. JAS. H. PETTEE.
 The Red Cross in Japan.
 MRS. JAS. H. PETTEE.
 Medical Missionary Work in West China.
 A. L. KILBORN, M. D.
 A Great Opportunity in China.
 REV. WM. ASHMORE.
 Medical Missions as an Evangelistic Agency in Southern China.
 EMMA J. BETOW, M. D.
 Some Phases of Life and Work in Japan.
 BERTHA CLAWSON.
 Forty Years in Peking.
 LUCY JACKSON-WHITING.

Fifth Meeting—Thursday Morning

10:00. Medical Missionary Question Box opened by DR. J. F. MORSE.
 Responses by Missionaries.

Sixth Meeting—Thursday Afternoon

2:30. Devotional Service, led by REV. J. P. JONES.
 MEDICAL MISSIONS IN INDIA AND TURKEY
 3:00. The Beginning of Medical Work in the Satara District, India.
 LOUISE H. GRIEVE, M. D.
 Extreme Conditions in India.
 REV. K. ANDERSON.
 Womanhood in India.
 MRS. K. ANDERSON.

Medical Work by One without Time or Skill.

MRS. Z. T. GRIFFIN.
 A Plea for Itinerant Doctors in India.
 REV. E. E. SILIMAN.
 Some Phases of Medical Mission Work in India.
 AGNES E. BASKERVILLE.
 Work among the Women of Assam, India.
 MISS ANNA E. LONG.
 Persia's Need.
 DR. E. T. LAWRENCE.
 The Medical Woman's Friends and Foes in Interior Turkey.
 DR. CAROLINE HAMILTON.
 Work of the King's Daughters Society of Smyrna among the Sick and Poor.
 MISS JEANNIE L. JILLSON.

Seventh Meeting—Thursday Evening

MEDICAL MISSIONS IN AFRICA, TURKEY, AND OTHER FIELDS.
 7:30. The Searchlight of Modern Medicine in Darkest Africa.
 J. EMIL BLUNDEN, M. D.
 Medical Work among the Zulus.
 JAS. B. McCORD, M. D.
 The Need of Medical Missions in Argentina.
 REV. JOS. L. HART.
 Pioneer Medical Work on the Congo.
 W. H. LESLIE, M. D.
 Medical Work by Non-Medical Missionaries in Brazil.
 REV. ERNEST A. JACKSON.
 Missionary Work in Siam.
 REV. R. T. POOL.
 Medical Itineration in Persia.
 JESSIE W. LAWRENCE, M. D.
 Resolutions.
 Closing Remarks.
 THE PRESIDENT.

Cummings, O.; J. W. Free and wife, Mich.; Rev. W. R. Pierce, Mich.; W. F. Matthews, O.; Mary Ketring, M. D., China; Roy F. Lorish, Chicago; W. A. W. Taylor, Vancouver; L. H. Sackett, Ky.; L. E. Parsons, O.; Miss Margaret Allen, Mo.; Aden Knopp and wife, Ill.; C. E. Axer, Ind.; Fritz Wagner, Jr., Chicago; Mrs. Wm. Scarlett, O.; Marie T. Hasenpflug, Cleveland; August Ruff, O.; John W. Taylor and wife, N. J.; W. M. Morley, Dallas; F. W. Starbuck, Mrs. F. W. Starbuck and Marguerite Starbuck, Wis.; W. B. Wilde, Ill.; A. Lynn Free, Mich.; R. C. Martin, Jr., Mrs. R. C. Martin and daughter, La.; Percy Hernant, Toronto; R. W. West and wife, Cleveland; L. C. Jones, Conn.; N. S. Fleming, W. Va.; Wilber Vance and Emerson Vance, Mich.; Abraham Flexner, N. Y.; Mr. and Mrs. W. E. Bundy, Chicago; Mrs. M. S. Pugh, Mo.; Mrs. T. C. Drake, Chicago; Mrs. R. N. Smith and Mrs. N. W. McBride, Ind.; Mrs. D. Bowles, Boston; Carl Hatfield, O.; H. M. Cole, Mich.; Rev. Chas. E. Stickle, Ill.; J. C. Bassett and Mrs. J. C. Bassett, S. Dak.; E. F. Gorton, Chicago; C. F. Walker, O.; Mrs. M. E. Moon, Tex.; F. C. Vass and Miss Mabel Vass, N. Y.; Olive J. Bole, O.; E. W. Olds and Mrs. E. W. Olds, Mich.; Wm. G. Bassett, Mass.; John Kloss, O.; Hugh L. Black, Ala.; F. C. Harbour, Ill.; Manda Hartshorn and Miss Bigelow, Mich.; R. L. Evans, O.; J. P. Schneider, Detroit; E. B. Campbell, Pa.; Mrs. Lucy B. Kerr, Calif.; Carl Dreier, New York; Chas. A. Baker, Mo.; H. L. Chapman, Ill.; H. J. Northcross and Mrs. H. J. Northcross, Tenn.; Mrs. C. A. Dockstader, Mich.; W. P. Shockey and Mrs. A. C. Timm, Chicago;

ARRIVALS

THE list of arrivals at the Battle Creek Sanitarium for the week ending February 13 is as follows: E. N. Train and Hannah Jacobson, Ind.; Mrs. N. K. Sheldon, City; O. E. Covil, Mass.; Jas. P. Grey, Tenn.; Ted M. Matgen, Detroit; Mrs. J. L. Reddick, Mich.; Mrs. Ira Miller, Mich.; Moses Bigur, New York City; Mrs. M. D. Warner, Ill.; Frances G. Shanklin, Ind.; Mrs. W. R.

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The Two-Year or professional course, intended especially for Dietitians, Lecturers, and Demonstrators, includes all the studies of the one-year course, and in addition Advanced Chemistry, Advanced Physiology, Sanitary Science, Bacteriology, and Hygiene, and Advanced English.

ONE SPECIAL FEATURE of this school is that students are given an opportunity to meet a large part of their expenses by work along lines which aid them in their studies.

**The Battle Creek Sanitarium School
of Health and Household Economics**

**BATTLE CREEK
MICHIGAN**

Austin C. Waller, Iowa; Wm. W. Worster, M. D., Ind.; Mrs. H. H. Hubbard, City; Mr. and Mrs. J. S. Van Cise, N. J.; Oliver Moore, Mich.; C. M. Brown, Mich.; E. E. Silliman, Mrs. E. E. Silliman and child, India; H. T. Myers, Chicago; Lillian Jackman and L. S. Jackman, Ky.; Mrs. M. L. Thackaberry, Chicago; Estelle B. Pryor, Jane Pryor and James Pryor, Mich.; D. D. Cooper and A. Cooper, Jr., Tenn.; Mrs. M. S. McAllister, Tex.; Chas. L. Stone, Wis.; J. W. Hopkins, Wis.; Geo. O. Hill, Boston; Mrs. Herndon Corbett, China; Mrs. M. B. Field, Tex.; Mrs. H. B. Sanborn, Tex.; Mrs. Cora Benham, Ind.; S. N. Cragun, Ind.; H. H. Webb, O.; W. F. Pope, Chicago; Gustave A. Berghoff, Ind.; Ab. Spence, Mich.; Fred A. Gooding, N. Y.; L. G. Wagner, Mich.; T. H. Main, Chicago; J. A. McGowan and wife, Mont.; W. E. Bundy, Chicago; E. T. Lawrence and family, Tenn.; A. A. McCabe, O.; H. G. Butler, Mont.; Robert Hamil Nassau, M. D., Philadelphia; Mrs. G. L. Gilbertson, Ia.; M. Bunnell and wife, Minn.; H. H. Eberline, Detroit; Dr. Harlan and son, Mich.; A. Arthur McElarthy, M. D., Mich.; Rev. J. Y. Aitchison, Chicago; R. C. Pryor and wife, Mich.; W. A. Kline, O.; R. L. Griggs, Fla.

Dr. F. J. Harlan and son, of Flint, Mich., spent Sunday with Mrs. Harlan, who is a patient in the institution.

A. A. McLarty, M. D., of Manistee, Mich., an old friend and patient of the institution, is again with us.

Dr. Abraham Flexner, of the "Carnegie Foundation for the Advancement of Teaching," spent the afternoon of the 9th inst. in Battle Creek, visiting the American Medical Missionary College. He expressed himself as much pleased with his observations and interested in the work which is here carried forward.

Miss Maude Hartshorn and Miss Bigelow, respectively director and assistant director of physical culture in the University of Michigan at Ann Arbor, visited the Sanitarium during the past week and were greatly pleased with what they saw and learned. These ladies are interested in the formation of the Southern Michigan Association of Physical Directors, of which we spoke last week.

H. G. Butler, of Stevensville, Mont., formerly connected with the Food Company of the Sanitarium as superintendent, spent a very short time with his friends in Battle Creek. Mr. Butler is engaged in farming in one of the beautiful and fertile valleys of that western State. He reports that he is well satisfied with his new home and intensely interested in its development. We are all glad to see him.

Mrs. Martin has resumed her duties at the Good Health book stand, located in the lobby, after several weeks' vacation.

Among the missionaries resting at the Sanitarium this week we note the following: Miss Mary Smiley, St. Thomas, Ont.; Miss Jennie L. Jillson, from Smyrna, Turkey; Mrs. Henry Topping, of Marioka, Japan.

Among the early delegates to arrive at the Sanitarium to attend the second Medical Missionary Conference were: Dr. Mary Ketring, of China; Rev. and Mrs. Z. T. Griffin, of India; Dr. E. T. Lawrence, wife and two children, of Persia; Rev. and Mrs. E. E. Silliman and little daughter, of India; Rev. W. F. Matthewson, of Japan; Rev. Robt. H. Nassau, M. D., of Africa; Dr. Jean Gordon, of India; Miss Marie Hasenpflug, of China.

The Medical Missionary Conference assembled at the Sanitarium according to program at noon on the 15th. After an informal reception of one hour in the 5th floor museum, the delegates and city pastors sat down to a dinner provided by the Sanitarium, at the conclusion of which the first meeting of the Conference was held in the Sanitarium chapel. The meetings are going forward at the present writing attended with unusual interest. A large number of missionaries are present, representing nearly all parts of the globe. Meetings are presided over by Dr. Robert H. Nassau, of Philadelphia, who has spent fifty years in western Africa. Elsewhere we publish the program of the Conference, together with a list of the officers.

News and Personals

Wm. W. Worster, M. D., of LaFayette, Ind., is spending a short time at the Sanitarium.

Battle Creek Sanitarium School of Physical Education

A GREAT OPPORTUNITY FOR YOUNG MEN AND WOMEN. Expenses may be largely paid in work. Gymnastics—German and Swedish; Dietetics; Massage; Hydrotherapy; What to do in Accidents, Emergencies and Common Maladies; Medical Gymnastics. Anatomy and Physiology; Chemical and Anatomical Laboratory work; Large Indoor and Outdoor Gymnasium and Swimming Pools.



Large Faculty of able teachers and trainers. Course one year. Tuition full year, \$85.00; Board and Room, \$3.00 to \$3.50. A number of students may pay their way in work.

Mr. Horace Fletcher will give a course of lectures on vital economics, and Mr. John F. Stapleton, formerly of the Yale Gymnasium, a special course on theory and practice of Swedish gymnastics.

The next regular term (new class beginning) opens January 3, 1910.

Any who are interested will be sent illustrated announcement with further details on request. Address:

The Battle Creek Sanitarium School of Physical Education
BATTLE CREEK, - - - MICHIGAN

THE BATTLE CREEK IDEA



Vol. III No. 12

BATTLE CREEK, MICH., FEBRUARY 25, 1910

Price 2 Cents

An Assembly of Missionaries

A Notable Meeting of Missionaries Held
at the Sanitarium During
the Past Week

THE second Medical Missionary Conference was held in the Sanitarium February

QUESTION BOX OPENED BY DR. W. H. RILEY

Sundry Timely and Practical Queries are
Explained to Sanitarium
Guests

Q. I have catarrh in the head. What is
the remedy?

Scientific Hydrotherapy

Underlying Principles of the Water Cure
—A Lecture Delivered by Dr. J. H.
Kellogg to Sanitarium Patients

THIS evening I am to explain some of the
principles underlying the practice of hydro-



MEMBERS OF THE MEDICAL MISSIONARY CONFERENCE, FEBRUARY 15-17

15, 16 and 17, according to the arranged program as published last week. We present herewith a photographic picture of the members of the Conference called together during one of the noonday intermissions. Quite a number of the delegates do not appear in the picture, being accidentally left out of the group. The president of the conference, the venerable Dr. Robert H. Nassau, of Philadelphia, doctor of medicine and divinity, sits near the center of the front row. He spent fifty years in missionary work in

(Continued on page four.)

A. The best thing to do is to see a physician and have the nose and throat examined and take proper treatment. Catarrh of the head, or, in fact, any form of catarrh, is usually attended by a lowered condition of the general health. People who are in good health seldom have catarrh, and those who are in sound health do not take cold very easily. People whose vitality is low are the ones who take cold, and who are more often afflicted with catarrh; so in the treatment of catarrh it is very important, along with the

(Continued on page five)

therapy, or the cure of disease by water. But we do not any longer use water empirically; its use is on a scientific basis at last. Winternitz, of Vienna, Brieger, of Berlin, and scores of scientific workers have contributed to placing this wonderful, miracle-working agent upon a rational basis. I hope this institution has contributed something in this direction. The European methods were mostly with cold water. Priessnitz's methods were almost entirely confined to the use of cold water. Here we have developed the use of hot water as well as cold,

and have brought out some methods of employing it, and have carried on elaborate experiments to determine exactly what effect every hydropathic application would have; so that we now know what result to expect under normal conditions.

The effect of the application of heat to the skin is to cause the blood to accumulate in the vessels near the surface. When the skin is reddened, it is because the blood-vessels are dilated under the influence of heat. The effect of cold upon the skin is that the blood-vessels are contracted and the skin becomes white. The blood-vessels are closed up so that almost no blood at all can circulate there. If a piece of ice be bound upon the skin, the skin will die, because the blood will be shut off and there is nothing to keep the skin alive, and the result will be, after a while, death and sloughing of the skin.

plication of heat, the blood, instead of being congested in the boil, is spread out in the tissues round about, and the tension in the painful area is lessened.

To get the very best effect from the fomentation to the boil, a little piece of rubber cloth or oiled paper should be put over the inflamed part; otherwise the vessels of the boil may be dilated and the pain increased. Some people do not succeed with these applications because they are not thorough enough. I saw a lady trying to apply a fomentation to her husband, who had lumbago. She had taken a towel and folded it up about as big as her hand, and found where the spot of pain was, and placed it there; and it did him no good at all, because it was a big pain and a little fomentation. The fomentation must be larger than the seat of pain, at least.

In order to relieve a good-sized boil, the

If one is in very great pain, then, it is necessary to apply heat to the whole surface of the body. I had a very good illustration of this. I was in the city of Seattle, and met there a young man who had been a nurse in some of the small institutions which have grown out from this one; he had not had as good a training as our nurses get, but he had opened some bathrooms in that city. He invited me to come to the bathrooms to see what he was doing. And as I looked into the place he said, "Doctor, here is a patient I want you to see. This is the first time this man has come here, and as he is a very wealthy man it would be worth a great deal to me if I could help him; but he seems worse instead of better. He had a terrible pain in his stomach. I gave him some treatment and he was relieved while he was having the treatment, but now feels worse than he did at the beginning, and he is getting worse every minute. What shall I do? It won't do to let him go this way."

I looked into the case. I found the man had indeed a very bad pain. I said, "What did you do?"

He said, "I gave him a fomentation to the stomach."

"Well, afterwards?"

"Afterwards I gave him a cold sponge bath."

I said, "It is evident what the difficulty is. Your application was not large enough and he has become cold and chilly, because the cold antidotes the heat."

So we put the man into a hot bath, and he was relieved in two minutes, and in about five minutes more he felt so comfortable that we took him out of the hot bath, wrapped him up very warmly, and cooled him off very carefully, and that man came out of his bath feeling as happy as could be, and went away entirely relieved from his pain. It makes a great difference whether this work is done in a haphazard way, or in a thoroughly careful, scientific manner.

Take a man who has great pain from muscular rheumatism, so that he can hardly move. Apply a hot fomentation and the pain is gone at once. The pain is due to the fact that there is pressure on the nerves of the muscle because the blood-vessels are too full. By the application of heat to the skin, there is more blood brought into the skin, and this drains the blood out of the muscle. Now, perhaps, on the other hand, we want more blood in the muscles, because they are exhausted, and the man is fatigued. We apply cold to the skin and it drives the blood into the muscles, so they acquire more power at once. If we use a muscle until it is tired out and can not do another thing, and then apply cold over it, the application will reanimate the muscle so it will be ready to work again. It is wonderful what a reviving power there is in a cold application.

Some time ago we took a very strong, healthy man into the bathroom, tested his strength, and found his total lifting capacity to be something like 6,500 pounds. We then put him into a hot bath and kept him there for thirty minutes, until he became so weak that he was anxious to get out. When he was taken out he required a man on each side of him to support him. We tested his strength again and it was only 3,500 pounds.

Original from

UNIVERSITY OF MICHIGAN



HYDROTHERAPY AMONG MAORI CHILDREN, HOT SPRINGS, NEW ZEALAND

A fomentation is the application of cloths, usually flannels, wrung from very hot water. Everybody knows that heat relieves pain. Take, for instance, a boil; the pain is caused by the blood-vessels being distended with blood. They are so distended with blood that the delicate nerves are pressed upon and irritated, and so there is pain. Now, a fomentation is applied over the boil. The effect of the fomentation is to dilate the blood-vessels of the skin around the boil, and by this means there is better distribution of the blood. The blood will be drawn off from the boil itself by increasing the amount of blood in the surrounding tissues. The arteries which carry the blood to the skin are not enlarged, so there is no more blood brought to the skin; but by the ap-

plication of heat, the blood, instead of being congested in the boil, is spread out in the tissues round about, and the tension in the painful area is lessened. To get the very best effect from the fomentation to the boil, a little piece of rubber cloth or oiled paper should be put over the inflamed part; otherwise the vessels of the boil may be dilated and the pain increased. Some people do not succeed with these applications because they are not thorough enough. I saw a lady trying to apply a fomentation to her husband, who had lumbago. She had taken a towel and folded it up about as big as her hand, and found where the spot of pain was, and placed it there; and it did him no good at all, because it was a big pain and a little fomentation. The fomentation must be larger than the seat of pain, at least. In order to relieve a good-sized boil, the

Original from

He had lost three thousand pounds in strength in thirty minutes. Then we took him into the spray bath and gave him a cold shower for two minutes, brought him back to the dynamometer and he lifted 500 pounds more than he did in the first place; he was 7,000 pounds strong instead of 6,500. His strength had all been put back into him, and a little more, in just two minutes in a cold bath. Thus you see that there is a wonderful power in these hydiatic measures, operating in one way or the other.

Hydrotherapy affords a means by which it is possible to influence the circulation of the blood in any part of the body we like. The principle of this is very simple. When you get very tired on a hot summer day,—perhaps you have been out in the hot sun,—the first thing you do when you go into the house is to bathe your face in cold water. Suppose somebody faints away, the first thing to be done is to throw some cold water in the face. This application of cold to the surface of the skin has such marvelous revivifying power because there are sensations which go from the face to the brain. When the cold is applied to the skin of the face, it stimulates the brain, increases its activity right away, and that part of the brain that has control of the heart is stimulated also.

EVERY ORGAN HAS A FACE

Now, what is true of the brain and its connection with the surface of the face is true of every organ of the body. Every organ has its face,—a special area upon the surface which is connected with it, and through which it may be influenced. For example, there is the cutaneous area over the heart. This area is connected by nerves with the heart, and a cold application to the area will stimulate the heart marvelously. The same thing is true of the chest. The skin covering the chest is connected with the lungs. Suppose while you are sitting, somebody should drop a few drops of ice water down the back of your neck, so that it should come on to the skin covering the back of the chest, there would be a huge gasp right away. It is impossible to help it, because it is involuntary. It is because this part of the surface of the body is connected reflexly with the lungs.

What I have been saying about the brain, and the heart, and the lungs, is just as true of the liver. The whole surface of the body is more or less connected with the brain; the entire surface of the body is more or less connected with the heart; and the entire surface of the body is more or less connected with the lungs, and with every other organ in the body. The kidneys have two faces. One is over the kidneys behind, another is over the lower third of the sternum in front; the skin over the lower part of the breastbone is in some way connected with the kidneys. The skin of the hands is connected with the lungs and with the brain as well as the skin of the chest.

As for the kidneys, there is a nerve that runs from the skin over the lower part of the sternum to the spinal cord, then a branch of it runs out into the kidney. When a cold application is put on in front, it causes the vessels of the skin to contract, and through reflex action it causes the blood-vessels of

the kidney to contract at the same time. Whatever happens on the skin happens in the internal part at the same time. There is an ice bag put on, and that reflexly causes contraction of the blood-vessels of the skin. If we put a fomentation on the back over the kidneys, we have a somewhat different effect. A fomentation applied to the back draws the blood out of the kidney. So, when you put an ice bag in front over the sternum, and the fomentation behind, the effect would be that the ice bag contracts the blood-vessels of the kidney, and the fomentation draws the blood out of the kidneys, so the most severe congestion of the kidneys can be relieved. What a valuable thing it is to know that, and to know it as a scientific fact,—that we can control the circulation at will. And what is true of the kidney is equally true of the other organs of the body.

A SIMPLE REMEDY

If we have a patient whose stomach is so congested that whenever food is taken into the stomach it is immediately rejected—and we get such cases very often,—persons who are starving to death because they can not keep food upon the stomach, we simply put a moist abdominal bandage around that patient,—a towel wrung out of real cold water, and when that begins to warm up a little, we put a hot bag on the moist bandage right over the stomach. After about twenty minutes, we give the patient something to eat or drink, and the chances are about twenty to one that it will stay down. It is very rare indeed that this method does not succeed; with almost absolute certainty it will result in quieting the stomach.

Let us see how it succeeds. The cold moist abdominal bandage is put around the body. That stimulates the nerves of the skin and contracts the vessels of the stomach, while a hot bag applied over the stomach draws the venous blood away from the stomach, and thus the stomach is relieved. This method is simple, yet it is of so much value that I think I am not overstating the matter when I say that I know we have at this institution saved scores of lives by that simple thing, and I do not know what else would have helped them if that had not done so.

Suppose a case of appendicitis. The appendix is congested; we put the patient in the hot blanket pack from the waist to and including the feet, and when it begins to get warm, a couple of ice bags are slipped under the blanket right over the appendix. The ice bag causes a reflex contraction of the blood-vessels in the appendix, while the hot application draws the blood away into the legs, and they become a reservoir of blood. So the blood is diverted away from the congested appendix, and the patient is relieved. I have seen many cases of appendicitis, and inflammation of other pelvic organs, that threatened to end the patient's life, relieved in a short time by this very simple application; it is marvelous how it relieves pain. We perform a serious operation, the patient goes to bed, and the worst thing in the world for that patient, after returning to the ward from the operating room, is opium or morphia. Many and many a patient has died because they

had morphia. The important thing is to avoid it.

Now, Doctor Tait, of Birmingham, was the first man to call attention to this fact, and he showed the terrible consequences of the use of morphia in serious abdominal cases. He revolutionized the practice of abdominal surgery in that particular. The custom at the beginning of his practice was to give the patient great doses of morphia to prevent the action of the bowels, for passage of the bowels after an operation was supposed to be very dangerous; but Doctor Tait adopted the very opposite measure. Instead of closing the bowels by means of morphia and opium, he adopted the method of stimulating the activity of the bowels, and opium had the effect to prevent this, so that is the reason he was so much opposed to its use.

I can recall a case which will illustrate the difference between the hydropathic and the old procedure. A doctor from Kentucky some years ago brought a patient to us to be operated upon for a tumor that was supposed to be inoperable. When we came to the operation, the case proved to be a very critical one. The tumor had grown fast to the blood-vessels and the abdominal wall, and it was enormous. When we got through with the operation and the patient went to the ward, her doctor, who was also her husband, said, "I suppose you will give her morphia to-night." "No," I said, "we can not give her any morphia. I fear it would destroy what hope she has, and she would die." "Well," he said, "she will never get through the night." I said, "We will take care of her and not let her suffer." He was very dubious, thought sure we would let his wife suffer; but I assured him she would get along all right. I heard from the patient during the night, and knew she was getting along all right. In the morning I went in with the doctor, and the doctor said, "Well, Julia, how are you? how did you get through the night?" "Fine, Doctor," she said; "I slept six hours." "What! you slept six hours? Nurse, how much morphia did you give her?" The nurse said, "Not a grain, not a particle." Then he turned to me and said, "Doctor, how did you do it?" The nurse showed him what was done,—hot hip packs and ice bags, just as I have been telling you about appendicitis; not another thing was done. The ice bag was laid just over the bandages, and the hot hip and leg packs were applied, and the patient had actually gone off to sleep; in fact, every time the pack was applied the patient went to sleep.

HYDROTHERAPY COMBINED WITH SURGERY

Now, that has been our practice for many years. That is how we succeeded in building up the longest line of unbroken succession of recoveries in these abdominal cases—one hundred and sixty-five cases without a single death. It was simply by combining the hydrotherapy with the surgery for relieving pain; and I am telling you this not to boast of our surgery, but because I want to impress upon your minds the fact that these measures will relieve the excruciating pain that follows a severe surgical opera-

(Continued on page five)

The Battle Creek Idea

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THE POWER OF CHOICE

THE greatest privilege conferred upon men, after the privilege of life itself, is the right and power to choose their own ways. The range of human possibilities is certainly very broad, and all these possibilities are open to the individual starting out in life. The prerogative to choose for himself is one that insures to every one the great gift of liberty. Liberty is indeed an inalienable right, and includes, of course, the power of choice.

The power or privilege of choosing for ourselves is an essential condition in the formation of character. The person who has no choice, and can only move in a certain direction, being so confined to a certain groove of action that he can not deviate from it, has no moral character. An individual is either good or bad according as he is such by his own deliberate choosing.

Not that a person needs to make his character by one great decision which shapes his course once and for all. Very few persons deliberately decide that they will take the downward course, and by one sweeping choice consign themselves to transgression and its consequences. Really there is but one definite, positive choice which sane people are likely to make, and that is the choice to do right. To do wrong does not require any choice, that is, any conscious, definite decision. Left to ourselves we gravitate toward that which is evil and hurtful. We have only to allow ourselves to drift with the prevailing current, and we shall find ourselves going down stream surely enough. And yet, a person does not go down the scale of life without his own consent; it is because he chooses to do so, or at least because he fails to choose to do that which is right.

No matter what aspect of life we consider, we shall invariably find that they who are traveling the upward path of moral, or intellectual, or physical, improvement are doing so only because of the impulse of a definite and firm decision and purpose. It is utterly useless to wait for some influence to come into our lives that will compel us to choose the right way. We shall find no bar-

riers across the downward way, this side of the precipice itself. A man who so chooses or permits himself to travel, may continue the downward course and no impediment will check him this side of doom.

Of course, signals of danger will be seen, pain will raise a voice of warning, premonitory signs of breaking down will appear; but still the man or woman may choose to go on regardless of these merciful symptoms until the final catastrophe comes, and none will prevent his doing as he chooses.

People may choose their path without any decisive conclusions at all. A person may choose by simply permitting certain bad habits to grow by almost imperceptible degrees. The choice is his own; he chose to allow the habits to remain, though perhaps he did not realize the bondage to which they would lead. But no one ever chose the path of virtue and moral and physical uprightness without knowing it. Such decisions, to be of any account, must be intelligently and uncompromisingly made.

And it is absolutely necessary for each one to take a positive and staunch stand for that which is right in every little particular if we would have an unquestionable foundation upon which to build a good character. Just so in matters of health, if one would have good sound health one must come to a definite decision to reject every hurtful custom, no matter if it seems inconsiderable at first. Plenty of people will laugh at his carefulness, but let him persevere, and in the end his righteousness will be brought forth like the light and his judgment like the noon-day.

ASSEMBLY OF MISSIONARIES

(Continued from page one)

the region of Western Africa known as the "White Man's Grave." He is now retired from the service but continues to promote the missionary cause by lecturing, and he is regarded as an effective speaker. At his left sits another famous hero of pioneer missionary work in India, Bishop J. M. Thoburn, of the Methodist Church, who labored in that distant country for fifty years save one. No name is better known in the annals of recent missionary progress than his. He, too, is now resting from his active labors in his own home at Meadville, Pennsylvania. On Dr. Nassau's right is seated Rev. J. P. McNaughton, who has spent thirty years in Smyrna, representing the work of the American Board or Congregational Church. Mr. McNaughton is doing a work of world-wide reputation in educational and evangelistic lines. He is a speaker of unusual power and is at present connected with the Laymen's Missionary Movement conventions that are being held throughout the country. From this conference he goes to El Paso, Tex., and from there to Los Angeles.

Behind Dr. Nassau stand Mrs. McNaughton and her sister, Miss Jeannie Jillson, who are also connected with the Smyrna mission. At the left of Bishop Thoburn are seated Dr. D. Z. Sheffield and wife. The doctor is president of the Union College in Pekin.

There are many other missionaries of distinction mingled in the company, but the crowded state of the picture renders it difficult to distinguish persons; indeed, the name of every individual is well worthy of mention, for they are those who have



BISHOP J. M. THOBURN, HONORARY PRESIDENT OF THE MEDICAL MISSIONARY CONFERENCE

wrought great deeds for perishing people in distant lands.

From first to last the meetings were of a very interesting and important character. The addresses represented medical missionary work in all its phases and afforded much that was interesting and instructive. The utmost harmony prevailed throughout and all felt that the occasion was most profitable. It was voted to accept the invitation of the American Medical Missionary Association to hold another conference early in next year. A resolution approving of the American Medical Missionary College as a suitable school for the education of medical missionaries was adopted.

The citizens of Battle Creek manifested a good interest in the meetings and many of them were in attendance.

It may be said truly that amongst the greatest and truest heroes are those who for the sake of saving the benighted people of neglected lands have left all that life held dear and have gone to seek and to save the lost. There is no earthly record of the burdens borne and the sacrifices made by these humble and devoted missionaries. It is an inspiration to mingle with these workers who have returned to their native land for a little breathing spell after many years of service under privations and difficulties of which we have no knowledge.

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SCIENTIFIC HYDROTHERAPY

(Continued from page three)

tion,—the pain may be so completely relieved that the first night the patient will go off to sleep.

If this is true, is it not worth while to take some of these simple measures to keep with you and to use them? Here is pneumonia—a congested lung. Now, the wet jacket, wet with cold water and covered over to keep it warm, relieves that congestion, and the pain is gone. I remember how very thankful I found a poor consumptive some years ago, a clergyman, who said, "Doctor, what shall I do for my cough? It keeps me awake all night long. I can not take morphia, because it makes me have night sweats, so I wish you could suggest something to me." I said, "Just take a wet towel, wring it out of cold water and rub the chest good and hard with one end of the towel; then put the towel on, cover it with several thicknesses of dry flannel and see what it will do." I met him six months afterwards, and he said, "Doctor, that chest pack did me more good than anything else I ever heard of. I went to sleep and slept soundly all night, and haven't had any trouble since."

It always gives relief, always helps. But it must be kept warm. If it is allowed to get cold and chill the patient, the effect is exactly the opposite. If you have made a hot application to the patient, and the patient is allowed to get cold afterward, all the work of the fomentation is undone, and it is worse than as if you had done nothing at all.

Eight years ago I spent a short time in California, working on a book, and when I went out for a little dash in the surf each morning, I passed by a little monkey house. A large mother monkey was there, and a couple of little young monkeys with her, and some green fruit had been put into the cage, and the little monkeys had been trying to help themselves to it, but the mother had gathered them up and was standing guard over them. But one had evidently swallowed some, and he was applying hydrotherapy to relieve himself. He had climbed up the side of the cage where there was a hot-water pipe that went around the cage, and he was hanging over that hot-water pipe taking a fomentation to his stomach. He had evidently studied hydrotherapy somewhere, or had gotten a knowledge of it, and was making a practical use of it.

Now, it is not always necessary that heat should be applied directly over the spot. When a boy gets stomach-ache, it may be good for it to apply a fomentation on the front and a hot hand on the other side. He perhaps needs some counter-irritation of some sort! Sometimes both are good for him. In case of pain in the chest, or pain in the head, or in a tooth, a hot application will accomplish wonders. In case of tooth-ache, plunge the feet into a tub of hot water.

The use of morphia is so convenient; it is so easy to inject a quarter of a grain of morphia, and the pain is gone. But the morphia simply deceives you, while the heat kills the pain. The hot application removes the cause of the pain, so it is curative as well as comforting. The hot foot bath is a

wonderful means of relieving pain, and the hot full bath has great possibilities for cure.

Here is a case of insomnia. Put the patient into a tub of water for half an hour, and he is almost certain to go to sleep; but it is necessary to have the temperature of the bath just right. The temperature of the water in the tub must be 92 to 95 degrees, not more and not less than that. This is tepid temperature or neutral, and it is very soothing. Some months ago I visited the Kalamazoo Insane Hospital, and the superintendent took me over to the disturbed ward where people were wild, could not sleep; in this ward were half a dozen or more bath-tubs, in each one of which was a patient. I asked him how long they would stay there, and he said anywhere from three to seven hours, till they became quiet. One can sleep faster in a tub of water than any other place. The water somehow assists the recuperative process very much.

These are some of the wonderful effects to be obtained from the use of simple hot and cold applications. They are remedies which can be used in any home, which, when carefully and intelligently administered, may be the means of saving not only many weary hours of suffering, but perhaps the life of some member of your household.

It is only of recent years that the principles of hydrotherapy have been used extensively in the treatment of the sick, but year by year the knowledge of its wonderful possibilities is becoming more widely known, and scientific men in this and other countries are fast coming to recognize its value and recommend its use. Before many years have gone by the proverbial medicine chest, so long considered such a necessary addition to the home, will be ignominiously dethroned and such simple necessities as fomentation cloths and ice bags take its place.

QUESTION BOX OPENED

(Continued from page one)

local treatment that may be directed to the nose and throat, that the individual have constitutional treatment to improve the vitality of the body and give more resistance against taking cold. This is the part of the treatment that is often neglected in people who have catarrh. Cold baths are excellent.

Q. In home life after leaving the Sanitarium, should other foods be substituted for meats; and if so, what?

A. There are a number of foods of the vegetable kingdom that are good substitutes for meat. Lean meat contains about nineteen or twenty per cent of nutrition, and its nutritive value is entirely protein matter. Now, there are a number of other articles that contain the same food elements, that is, contain protein, in as large or larger per cent than is present in meat. For instance, peas, beans, nuts, and all foods prepared from nuts have as large or a larger percentage of protein than does lean meat. And these articles of food, in addition to having the protein, also have carbohydrates, and some of them, particularly nuts, are rich in fats. The idea is very prevalent, I know, that meat is a food that gives strength and vigor; but as a matter of fact the nutritive value of lean meat is comparatively small when compared with some other foods. The nutritive value of all the cereals, and of legumes and nuts, runs away up to ninety-five per cent or even more. So lean meat is really not a very nutritious food. Fat meat, of course, has more nutrition in it, but it is more difficult to digest. In place of meat in the home, one may use peas, beans, lentils, or nut preparations. Whole wheat contains about twelve per cent of gluten, which is

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protein, and which is plenty of protein to properly nourish the body; so we do not need to go to the animal kingdom to get our protein, and we do not need to eat meat in order to be well nourished. As a matter of fact, there are more people living in the world to-day who do not eat meat than there are who do. Meat is not essential to healthy nutrition and to health. One objection to the use of meat is that it contains many substances which are harmful to the body, and in order to get the good that may be in the meat, we have to take many other things that are not good.

Q. How is peanut butter made?

A. I do not know that I can tell you exactly. The peanuts are cooked, not roasted, however; then the nuts are ground up. It simply contains the peanut with possibly a little salt added. Sometimes when peanuts are haked or roasted, the oil is split up, as we say chemically, into butyric acid and glycerin; and there are some objections to baking the peanuts at a high temperature, as this is apt to occur. The peanuts should be cooked at a lower temperature, so as to avoid the forming of butyric acid, which is irritating and unwholesome.

Q. What is the cause and what the cure for boils and carbuncles? I have suffered from them for twenty years.

A. There are some people who have a hereditary tendency to infection from boils and carbuncles. They seem to be especially susceptible in that direction, and, having inherited that tendency, when boil germs get into the skin, they can not resist them. After one has a boil or a carbuncle, unless he is very careful, he will have more. These boils contain germs, and the germs are scattered around on the skin, and if one's vitality is low, or if he has inherited a tendency to these boils and carbuncles on account of weakness of tissue or poor quality of tissue, or something of that sort, and they get one boil started, they are very apt to have a large crop of them. It is very important to take good care of the first boil, to destroy the germs, and to treat it in such a way that the germs will not be scattered around on the skin. The boil should be opened; the skin about the boil should be thoroughly washed with a disinfectant like bichlorid of mercury or alcohol, or a tincture of iodine, or one of several other things which might be used.

The important thing is to disinfect the skin around the boil and to keep it protected, to dress the boil antiseptically, disinfect it, keep it clean. Another very important thing to do is to improve the nutrition of the skin, and this can best be done by taking an alternate hot and cold bath. The heat and the cold applied to the skin increase the circulation of the blood through the skin and fill the skin with new blood.

Q. What causes rheumatism?

A. There are several different diseases which pass for rheumatism. More technically speaking, rheumatism is caused by a germ that gets into the blood, usually from the throat, then settles in the joints and produces an inflammation. In rheumatism the joints are swollen, there is a high tempera-

ture, the joints are tender, painful, and very often the patient can not move without great pain. The trouble runs along for a few weeks, and by and by perhaps clears up, and the patient may recover from the rheumatism. People who are subject to tonsillitis very often have rheumatism, and it is a very important thing when one has tonsillitis to take good care of the throat to get rid of the infection, because there is danger of rheumatism following the tonsillitis. The same germ that causes tonsillitis causes rheumatism.

When one has rheumatism, he may have inflammation of the lining of the heart, and that inflammation may lead to serious troubles with the heart. The throat, as a matter of fact, is the source of a great deal of infection in the body. The germs that get into the blood usually have a certain route through which they must go in order to enter the blood, and many of them get into the blood by way of the throat; some of them by bad teeth, a great many of them by so-called Rigg's disease, where the gums become diseased; so it is a very important thing to take good care of the teeth and of the mouth, because many germs get into the blood in that way. Some germs enter the blood by the way of the intestines, and sometimes some get in by way of the lungs.

Q. What is apepsia?

A. Apepsia is a condition of the stomach in which there is an entire absence of hydrochloric acid. It does not refer to whether a man has catarrh of the stomach, or ulcer of the stomach, or cancer of the stomach; it does not indicate that; it simply means an absence of hydrochloric acid in the stomach. Apepsia is a symptom in a number of different conditions. It may be a symptom in catarrh of the stomach; it may be a symptom in other organic diseases of the stomach, such as cancer. Years ago we were taught that if a man did not have any hydrochloric acid in his stomach, he had cancer. That is not true; because there are many conditions other than cancer in which there is no hydrochloric acid. Sometimes the secreting glands of the stomach become diseased, atrophied, and disappear, so there is nothing to secrete acid, and there is no acid on that account. Then, one's general health may be reduced to such a degree that he does not make any acid at all; and we find people who suffer from general debility, who are exhausted, worn out, anemic, and whose stomachs do not produce hydrochloric acid.

In the disease known as pernicious anemia we almost never find any hydrochloric acid in the stomach. Of course, the only way to tell whether it is present or absent is to make analysis of the contents of the stomach.

Q. What is hypopepsia?

A. Hypopepsia is a condition in which the hydrochloric acid is reduced below the normal, but there is some present. We find this condition in about the same diseases as we find apepsia, although it is not so severe a disorder. We find it in general debility, in dilatation of the stomach; and in several different organic diseases of the stomach there may be a deficiency in hydrochloric acid. Hydrochloric acid is a normal acid of the stomach. The chemical formula is HCl, —one part hydrogen and one part chlorine united together; there is from two- to three-tenths per cent of hydrochloric acid in the gastric juice of the normal stomach. That is not much; and yet, as a matter of fact, the gastric juice is exceedingly acid to the taste.

Q. What is hyperpepsia?

A. Hyperpepsia is where there is an excess of acid in the stomach, an amount above the normal. We find that there are more people who suffer from hyperpepsia than there are who suffer from any of the many other forms of indigestion. Hyperpepsia is usually found in young persons, or perhaps persons in middle life; and very often a person who has a nervous temperament. Frequently we find it in cases of neurasthenia, where the individual is suffering from lack of nerve tone, so-called nervous exhaustion. We find it also in cases of migraine, or sick headache. I have examined many, many such cases, and found very few who did not have excessive hydrochloric acid in the stomach. And usually with this excess of hydrochloric acid, the bowels are more or less disturbed in their function, and the individual is nervous, sometimes has pain in his stomach, and it is present in a number of conditions of that kind. It would seem that a little excess above the normal amount would not be anything very bad, but as a matter of fact it does disturb digestion very much, and disturbs the function of the nervous system if the hydrochloric acid is increased above two- or three-tenths per cent.

THE human race is divided into two classes: those who go ahead and do something, and those who sit and inquire why it wasn't done the other way.—*Oliver Wendell Holmes.*

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ARRIVALS

FOLLOWING is the list of arrivals at the Battle Creek Sanitarium for the week ending February 20: Mrs. Alan B. Bowen, Colo.; Mrs. C. B. Browning, Mich.; Rev. and Mrs. Z. T. Griffin, N. Y.; Mary Janet Burns, Ind.; John R. Waller, Ia.; Mr. and Mrs. E. M. Bixby, Vt.; Mrs. H. V. S. Peeke, Mich.; Anna E. Long, Chicago; Eva Harlin, Minneapolis; A. E. Copping, Mich.; Wm. and Mrs. Ashmore, Chicago; H. M. Brock, wife and daughter, Grand Rapids; Mrs. G. P. Williams, Ill.; Laura McCoy, Ia.; R. M. Cole and wife, Turkey; C. C. Fuller, India; W. A. Loops, M. D., wife and daughter, India; Mr. and Mrs. J. P. McNaughton, Turkey; Dr. and Mrs. J. M. Waters, India; Rev. and Mrs. J. H. Peters, Japan; Miss E. E. Patton, Japan; Mrs. Calvin Wright, China; Miss A. E. Baskerville, India; Miss Herdman, India; D. F. Stanford, India; Mrs. Richard Baxter, City; Mrs. Robt. Bryce, Chicago; Mary Wintersmith, Ky.; Lena K. Sadler, Chicago; Dr. and Mrs. J. W. McKean, Siam; Mr. and Mrs. K. Anderson and children, India; Rev. and Mrs. U. S. Vincent, Siam; Louise H. R. Grieve, India; Wm. L. Curtis, Wis.; Mrs. D. D. Donahue, Ind.; W. L. Porter, Ia.; C. L. Kilbourn, Toronto; Caroline F. Hamilton, M. D., Turkey; Mary L. Noble, M. D., India; Rev. E. Schmidt, Buffalo; Henry M. Ford, Mich.; Mark E. Carr and wife, Ill.; J. F. Weber and Miss Jennie Weber, Detroit; Emma J. Betow, M. D., China; D. Z. Sheffield and wife, China; J. M. Thoburn and Mrs. A. B. Thoburn, Pa.; Miss Myrle Bellows and Ben F. Bellows, Mich.; Dora Davis, Bulgaria; J. O. Zloruke, Mich.; Mrs. Mary L. Coleman, Mich.; J. R. Mitchell, Mich.; Miss J. Edith Jenks, Ill.; T. S. Johnson, Ia.; Alma Strand, China; Mrs. Murtson, Chicago; Thos. P. Andrew, Ont.; Lucy J. Whiting, China; Virginia A. Billings, Turkey; Geo. T. Leeds, N. Y.; J. E. Bartlett and wife, Mich.; Mrs. John McThadyen, O.; W. H. Leslie, M. D., Pa.; Abbie M. Colby, Mass.; A. W. Woodburne, India; Mrs. H. D. Gorby, Mrs. H. A. Millican and Alice E. Evans, Mich.; J. B. McCord, M. D., South Africa; H. T. Myers, Chicago; John Baldwin, O.; Thos. J. Watkins, Chicago; Dr. T. M. Sellards and Dr. Dorothy Sellards, Detroit; Mrs. Luella F. McWhirter, Indianapolis; M. M. Seudder, N. J.; August Lenz, Mich.; Eugene Brown, Ill.; Mrs. Clara Ely, Mrs. A. F. Skeele and A. F. Skeele, Mich.; Mrs. M. E. Newton, Chicago; Mr. and Mrs. E. D. Taylor, Kalamazoo; J. C. Critchett, Mich.; Mrs. C. C. Fuller and baby, Africa; Mrs. L. E. Martin, India; J. A. R. Seagrave, Cleveland; Mrs. B. S. McCoy, Detroit; H. T. Frazier, Conn.; Mrs. H. B. Nichols, O.; Miss Allie Nichols, Kan.; W. B. Freeder, Ind.; Mr. and Mrs. E. Martin, Ia.; Mrs. H. F. Campbell and child, Ind.; Mrs. S. E. Garvin, Cincinnati; G. E. Spaulding, O.; Mrs. Alvin Willis, N. Dak.; Miss Bertha Clawson, Ind.; Margaret Wintersmith, Ky.; J. V. Harold, N. Dak.; C. H. Harold, N. Dak.; J. Frank Heald and wife, Wyo.; Mrs. John Carroll, Ill.; Mrs. E. R. Fisher and Mrs. H. C. Blackman,

Mich.; H. S. Merwin, Wis.; Jno. Emmons, O.; Inga Petterson, Japan; Mrs. Caroline MacDowell, Cleveland; W. D. Jones, O.; L. S. Dunham, Ore.; Herbert Langbert, Toronto; Mr. and Mrs. Chas. R. Rice, Chicago; Mrs. L. Dolge and Mrs. H. Smart, Minneapolis; Susan P. Reid, Ind.; H. J. Agnew, Detroit; Howard Hubbell, Mich.; E. T. May, Mich.; Albert Wise, O.; J. P. Baldwin, City; J. M. Barker and wife, Ind.; Mabel Hannah, Chicago; Homer J. Hall, M. D., Pa.; G. H. Parker, Ind.; Mrs. E. Scheif and son, Pa.; T. A. Rodefer, O.; J. M. Ward, City; Mrs. W. G. Carr and baby, Mrs. T. W. Tilghuran, and Mrs. B. S. Herring, N. C.; Mr. and Mrs. Grover Kildreiff, Ill.; Mr. and Mrs. S. A. Treat, Chicago; C. Nussbaum, O.; E. A. Webb, Minn.; H. Bluck and Geo. W. Suren, Minneapolis; Ralph N. Smith and son, Ind.; Mrs. J. H. Barker, Ind.; Geo. P. Guny, Detroit; Jerome G. Laumers, O.; Mrs. D. C. Ringh, Japan; Mrs. G. H. Dubbick, Mich.; W. S. Edward, Mich.; Otto S. Luther, Ia.; A. E. Kenaston, Mich.; Chas. W. Shoemaker, Ind.; C. W. Brown, Mich.; Albert Spence, wife and two children, City; W. H. Conean, Detroit; Frank Kieper, Rochester, N. Y.; Dr. F. J. Harlan, Mich.; G. H. Stems, Ia.; H. T. McCord, Minneapolis; Geo. H. McMillin, Minneapolis; Jno. F. Garrison, N. Y.; Wm. Conly, Mich.; F. Wolf, City; S. S. McClure, New York City; Miss Laura Curie, New York City; Jacob Fisher, Ind.

THE following statement of a grand old truth is short enough to be direct, and direct enough to be forceful and uplifting. 'The Bible says, "The fear of the Lord is the beginning of wisdom." Surely the spirit of the Bible says the love of the Lord is the perfection of wisdom; and the love of the Lord is best shown by the love of man.

News and Personals

J. T. Webber and his daughter, Miss Jennie, of Detroit, are taking treatment at the Sanitarium.

Miss Anna Smith is again with us, after spending several weeks in the Chicago Dispensary.

Miss Lotta Burden has returned to her duties in the cashier's office after an extended vacation.

B. S. McCoy, of Buffalo, son of Chaplain McCoy, is in the city with his wife, the latter taking treatment at the Sanitarium.

Miss Winifred Carson, a nurse, left us last week to accompany her patient, Mrs. W. K. Kellogg, to St. Petersburg, Florida.

Ella Stevens, of Macon, Ga., has returned to her home in the South after spending a few months at the Sanitarium.

Judge Spurrier has returned to his home in Des Moines, Ia., after spending several weeks in the institution, where he received great benefit.

Dr. Leslie and Mr. Chas. Haylock gave a swimming exhibition on the 15th inst. in the ladies' pool, for the entertainment of the missionary guests.

Dr. Carolyn Geisel, accompanied by her sister, Miss Alice Geisel, left us a few days ago for Florida to attend various Chautauqua assemblies in that State.

A party from Wilson, N. C., arrived at the Sanitarium last week, consisting of Mrs. W. T. Carr and baby, Mrs. I. W. Tillighman and Mrs. B. S. Herring.

The Misses Mary and Margaret Wintersmith, of Louisville, Ky., have arrived to be with their parents, Mr. and Mrs. H. B. Wintersmith, who are guests in the institution.

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**The Battle Creek Sanitarium School
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**BATTLE CREEK
MICHIGAN**

Dr. Frank J. Otis, superintendent of the Sanitarium at Moline, Ill., spent several days with his many friends at the Battle Creek Sanitarium.

Mr. S. S. McClure, of New York, editor and proprietor of *McClure's Magazine*, is again with us, having recently returned from a trip to Europe.

LOST—A gold enameled brooch, wreath design. The same was lost about the Sanitarium or College on the 22d inst. A reward will be given the finder upon returning it to the owner, Mrs. G. B. Homman, of the Medical College.

Among the recently returned patients are our old friend, Col. C. E. Carr, of Galesburg, Ill., for many years a prominent figure in the diplomatic and political world; and Mrs. J. B. Busch and daughter Lilly, of St. Louis.

Miss Elizabeth LaForge, who was graduated from the Sanitarium Nurses' Training School a few years since, is visiting her associates here. With her sister Zoe she is now located in Flint, Michigan, where they are doing work in their profession.

Dr. Lena K. Sadler, of Chicago, was a guest of the Sanitarium in attendance upon the Medical Missionary Conference. Her many friends were delighted to see her. With her husband, Dr. W. S. Sadler, she is actively engaged in medical work of a philanthropic character.

J. P. Haemmeter, of Detroit, who has been spending the past few weeks at the Sanitarium, returned to his home greatly benefited by his stay here.

Mr. Drever promises the most choice entertainment of the season on Tuesday evening, March 8. The orchestra will be augmented to over twice its usual number, and the program will be varied by vocal numbers by a ladies' quartet, and readings. Special provision will be made for the comfort of guests, and the gymnasium will be tastefully decorated. Receipts for the benefit of Sanitarium library.

On the second of March the Layman's Missionary Movement will be inaugurated in Battle Creek by a banquet held in the evening in the First Methodist Church. Prominent speakers from other cities will be in attendance. It is anticipated that fully three hundred of the business men of Battle Creek will attend the supper and that the missionary cause will receive a decided impetus from this time.

Reference to our list of arrivals for this week shows a large number of people arriving from various parts of the world. These are principally delegates to the Medical Missionary Conference. While most of these have returned to their homes or fields of labor, some are tarrying at the Sanitarium for rest and treatment. In another place we give a *résumé* of the conference, which was from first to last a meeting of extraordinary interest and power, and in every way satisfactory to those who participated in it.

There will be a joint meeting of the Sanitarium and City Woman's Christian Temperance Unions held in the Sanitarium parlors on next Sunday afternoon at three o'clock. This promises to be a very interesting occasion. Mrs. Field, the national evangelist, and one of Michigan's prominent workers, will be present. All members and friends are invited to be present.

Preparations are being made for a meeting and banquet for the business men of the city to be held in the First Methodist Church on Wednesday evening, March 2. This will mark the inauguration of the Laymen's Missionary Movement in Battle Creek. It is expected that there will be a large attendance, and a general invitation is extended to all men who are interested in the great missionary campaign now going forward. Prominent speakers will be there to address the meeting.

Among others who attended the Medical Missionary Conference at the Battle Creek Sanitarium during the last week were Doctors D. H. Kress and A. A. John, the former of the Washington, D. C., Sanitarium, and previously a member of the Battle Creek Sanitarium medical staff. Dr. Kress spent several years in Australia in sanitarium work and since his return to this country has been superintendent of the Sanitarium at Takoma Park, Washington. Dr. John has been for several years engaged in medical missionary work in Mexico. His work is among the natives of that country, where he has been able to accomplish much for their relief.

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A GREAT OPPORTUNITY FOR YOUNG MEN AND WOMEN. Expenses may be largely paid in work. Gymnastics—German and Swedish; Dietetics; Massage; Hydrotherapy; What to do in Accidents, Emergencies and Common Maladies; Medical Gymnastics. Anatomy and Physiology; Chemical and Anatomical Laboratory work; Large Indoor and Outdoor Gymnasium and Swimming Pools.



Large Faculty of able teachers and trainers. Course one year. Tuition full year, \$85.00; Board and Room, \$3.00 to \$3.50. A number of students may pay their way in work.

Mr. Horace Fletcher will give a course of lectures on vital economics, and Mr. John F. Stapleton, formerly of the Yale Gymnasium, a special course on theory and practice of Swedish gymnastics.

The next regular term (new class beginning) opens March 28, 1910.

Any who are interested will be sent illustrated announcement with further details on request. Address:

The Battle Creek Sanitarium School of Physical Education
BATTLE CREEK, MICHIGAN

THE BATTLE CREEK IDEA

Vol. III No. 13

BATTLE CREEK, MICH., MARCH 4, 1910

Price 2 Cents

WHAT IS CATARACT IN THE EYE?

Lecture Delivered in the Sanitarium Parlor, by Dr. J. F. Byington

I HAD two reasons for selecting cataract as a topic for discussion this evening. First, I have come to the conclusion that the nature of cataract is quite generally misunderstood, because patients often speak of having cataracts taken off. In reality, cataract is not on the eye but in the eye, and when it is removed, it is taken out of the eye. My second reason for thinking this subject might be of interest is that we are all doomed sooner or later to have cataract, provided we live

The Art of Living Long

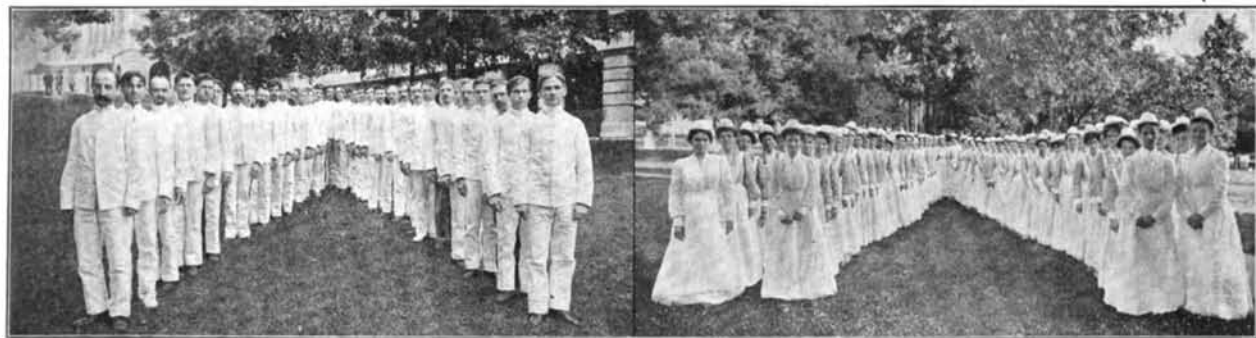
A Lecture in the Sanitarium by the Chinese Minister, Wu Ting Fang

WE present to our readers at this time a portion of an address given by the Chinese minister, Wu Ting Fang, on the occasion of his visit to the Sanitarium some months ago. While it does not have the merit of being the most recent of his utterances, there is a relish of originality of thought and unique expression that will make it of special interest. We have purposely preserved the peculiar forms of speech used by the distinguished statesman:

THE STAFF OF LIFE-- GOOD BREAD

Dr. Kellogg Writes on What Breadstuffs We Should Eat, and Why

BREAD is one of the most interesting of foods. It is perhaps the oldest of all the products of the art of cookery. Raised bread is particularly interesting, as it brings up a host of curious questions respecting the discovery and operation of this process among primitive people. The use of leaven reaches back beyond the earliest historic records, and its long and universal use naturally suggests the idea that even yeast itself can not be considered as particularly harm-



SANITARIUM NURSES

long enough. I once heard Dr. Knapp, one of the oldest and most respected oculists in New York City, say before a body of medical men that if we lived long enough we would all have cataract. He came to that conclusion from the following facts: We know that between the ages of forty and fifty years very few people have cataract; though I have removed one senile cataract in a person thirty-five years of age; but that is very young for senile cataract. Between fifty and sixty a certain number of people develop cataract, but comparatively few. Between sixty and seventy, they are fairly common; between seventy and eighty they are much more common, and between eighty and ninety they are very common. In fact, the majority of people between eighty and ninety have cataract in their eyes more or less fully developed.

In order to understand the nature of cataract, it will be necessary to explain to you a little of the anatomy of the eye in general and of the lens of the eye in particular. for

When I came here I had no idea that I would have the great pleasure of addressing you. Dr. Kellogg, whose guest I am, has asked me to give you a talk; but, if I were to give you a talk, I do not know what would be an appropriate subject for me to speak about. But since we are in this great Sanitarium, I suppose the subject which will be the most appropriate will be a talk about sanitation, or in other words, by what means to keep our bodies in good shape and to prolong life. I think you know, on a subject like this, we all ought to be interested.

This institution far exceeds my expectations, although I had heard something about this place and that it must be a very good one; but I never thought you would have such a splendid institution carried on in such a magnificent way. Why, I find here everything up to date, provided with the most modern appliances and conducted in a most skilful way. This is my third day here, and I have had some experience and some of the treatments. I must say that the treatments

ful. But yeast and yeast bread are two quite different things. One of the interesting things about bread is the great number of things in it, because of the changes which take place in the making of bread.

The lightness of bread is due to the expansion of the starch granules. The hydration or cooking of a starch granule increases its volume many times. This is seen in the popping of corn. This is one cause of the lightness of bread, but another and the principal cause in the making of raised bread is the production of carbonic acid gas by the yeast cells. The yeast contains a ferment which converts some of the starch into sugar. Then the sugar is converted by the yeast into alcohol and carbonic acid gas. The gas as it increases in quantity and by the effect of heat swells the loaf and renders it light and porous. But there are other things in bread besides yeast and starch. There is in wheat, rye and barley, gluten, and in other cereals proteins of allied character. Gluten is not attacked or decomposed by yeast, but it is readily changed into various poisons and

noxious substances by the action of putrefactive germs or ferments which are always found in great numbers in flour. In dry weather, clouds of dust stirred up by passing vehicles are carried over the wheat fields and deposited upon the ripening heads of grain. This dust contains multitudes of germs and molds derived from the excreta of animals and from other sources.

The conditions of warmth and moisture afforded by the "set" of dough preparatory to bread-making are extremely favorable to the development of these putrefactive organisms. After an incubation period of three or four hours, these germs become exceedingly active. This is the cause of the foul odors given off by salt-rising bread. The time required for the preparation of bread by this process is so great that the putrefactive organisms reach an advanced state of development, so that there is an actual decay or rotting of the gluten and other proteins. When active yeast is added to the flour and the dough is raised quickly, these putrefactive organisms do not have an opportunity

160° F. The yeast cells are usually destroyed, but the germs which give rise to putrefaction, and many other germs are not killed at this temperature; a very much higher temperature is required. If the bread is cut into slices and returned to the oven and baked until slightly brown throughout the thickness of the slice, it is thoroughly sterilized. But when ordinary bread is eaten, especially if recently baked, and if thorough chewing is neglected, there enter the stomach doughy masses of imperfectly cooked starch in the interior of which are millions of germs capable of setting up putrefaction, germs which may give rise to catarrh of the stomach and intestinal catarrh, so-called gastritis and enteritis. These germs may become a source of intestinal auto-intoxication, gallstones, inflammation of the gall-bladder and numerous other acute and chronic disorders of the digestive viscera. These doughy masses are long retained in the stomach, for the reason that their digestion in the stomach is extremely slow. The digestive fluids can not permeate them because of their lack of

ment of molds, the spores of which are often present in flour in enormous quantities. These spores are not killed by the ordinary baking process, hence bread which has been kept some days is likely to be well permeated by various varieties of molds. The presence of these fungi may often be detected by a stale or even moldy flavor. Some of the molds are harmless, as edible mushrooms, but others are nearly if not quite as poisonous as the poisonous varieties of mushrooms.

On the whole, the use of raised bread ought to be discouraged, or if used the bread should be baked in small, thin loaves, so as to secure thorough baking and sterilization. In oriental countries and among savage tribes which make use of leavened bread, the bread is always baked in small, thin loaves, and thus the evils to which attention has been called are for the most part overcome. The huge loaves of our modern bakers are a disadvantage. It is a matter of general knowledge that the crust of bread is more digestible as well as sweeter than the crumb. This is because of its more thorough baking. The toasted cereal flake is perhaps the greatest modern improvement in breadstuffs. Each grain is converted into a thin cake or flake, then toasted. This secures the thorough sterilization and deep cooking of the entire grain. Ordinary bread by cutting into thin slices and toasting until crisp and brown may perhaps be made equally wholesome. Doughy, half-cooked bread is an insult to the stomach and should never be eaten.

THE ART OF LIVING LONG

(Continued from page one)

are novel to me; it is creating a novel sensation; but I feel sure, ladies and gentlemen, that most of you have a longer experience than I have on matters like this, so you are better authorities; but I think you know they are adapted to recuperation, to regenerating, and to rejuvenate us, giving us renewed strength, and I am sure if you go through with them and observe the instructions given by the doctors and the nurses, you will derive great benefit from them.

I suppose you are all here for getting better health, and this is the place, no doubt, to give you it, but I think you know that, generally speaking, we do not live as we ought to. That is to say, we live in a way that we do not pay much attention to it. We ought to take better care of our bodies, of our health. I find, generally speaking, it is a very rare thing to find a person in perfect health, because we do not pay much attention to it. We pay more attention to other things, to other matters which we think are important. For instance, we think the accumulation of wealth is very important; so it is very important, but is not the maintaining of health more important than the accumulation of wealth? What does it benefit a man if he should become a millionaire or a multi-millionaire if he is broken down in health?

And many people have worked hard for many years to gain riches, but when they had become rich, they had not a very long time to enjoy their wealth; so what is the benefit of this? Isn't it better to be in good



SOUTH AFRICAN KAFIRS WATCHING THEIR DINNER

to develop. The lactic acid formed in connection with the yeast used for raising purposes also hinders putrefaction, hence the best bread is that which is raised most quickly. Bakers have discovered this and secure rapid rising by increasing the quantity of yeast. Yeast itself being harmless, there appears to be no objection to this method.

PERSONS WITH WEAK DIGESTION SHOULD DISCARD RAISED BREAD

For persons in perfect health, whose stomachs produce a sufficient amount of active gastric juice, raised bread is digested without difficulty, but many invalids and persons who suffer from chronic indigestion find themselves unable to take raised bread without inconvenience. The reason for this is to be found in the fact that raised bread when baked in large loaves is thoroughly cooked only upon the exterior. Experiments have shown that the temperature of the interior of the loaf does not rise higher than

porosity and friability, hence they can be only slowly dissolved from the outside. The larger the masses, that is, the more imperfect the mastication, the longer the food will be retained in the stomach. In the meantime, the pernicious bacteria are rapidly multiplying, so that by the time it enters the intestine a really putrescent condition may be produced.

This effect is doubtless more pronounced in salt-rising bread than in yeast-raised bread, for the reason that in the process of salt-rising, the decomposition is permitted to advance much further than in yeast raised bread, and also because the acids present in yeast-raised bread hinder the development of the putrefactive process.

Stale bread is less open to objection than new bread, for the reason that the crumb of the bread is more friable and hence is more easily reduced into smaller masses in mastication. But stale bread has the disadvantage that opportunity is afforded for the develop-

health than to devote our attention and all our energy to acquiring money? Mind you, I do not despise wealth. We ought to have money in order that we may live, but still health is a more important thing, and we ought to cultivate it.

Take the case of eating—we do not eat properly. We eat everything that suits our taste, and we do not bestow any thought,—whether the food we swallow will suit the stomach or not. If we do that, we must remember that what is pleasant to our taste is not always pleasant to our internal organs. Of course, upon this subject, I need not enlarge, because it is one of the subjects eminent men have been talking about, and you know a good deal about it; but for all that we must remember that we ought to be careful of what we eat. I understand Mr. Horace Fletcher was here recently, and he had given you a talk about how to eat food, and that is very admirable. I have been following it to a great extent, and I am glad to say I have been benefited by it.

Now, you may be interested to know how I became, not exactly a vegetarian, because I am not in the strict sense of the word; I am a sanitarian. That is a word coined by an American lady, Mrs. Henderson. I may tell you that I was brought up on a mixed diet,—was very fond of pork, chicken, beef, mutton, and other things which I thought were very good, and also some wines, Chinese wine, and I had cultivated the taste of drinking champagne, and I was very fond of it, but you know, after reading the book of Mrs. Henderson, called the "Aristocracy of Health," I had to think seriously about the way I was living; and then, not being contented, she was good enough to send me some more books, and amongst them some written by our good friend, Doctor Kellogg. After reading these books my eyes were opened, and I was convinced that the way I was living was not a proper way. So I determined to give it up, to change for the better. And I gave up all kinds of flesh food, coffee, all intoxicating drinks, including champagne; and Mrs. Henderson says that even tea contains therein—something poisonous. At first I would not believe it, because, you know, it is our national beverage. I used to drink it every day. But you know, the way we drink tea, I do not think it is so injurious as yours, because we put in a few tea leaves, and pour boiling water over them, and the tea is not so strong, and we do not put sugar or lemon in the tea, as some of you do. But after all, since it has been proved that it contains therein, which is poisonous, I had to give it up, almost with tears. Now, after giving up these things, you know, my health improved, and all the former complaints I had suffered, sensibly decreased, and finally disappeared, you see; so therefore I am greatly benefited by the change of my diet. So now, although since then many strong arguments have been adduced that I should revert to my old diet, I have always stood firm, and will not go back to my former pernicious ways.

I think the subject for me to talk about is, how to prolong life. Now, if you eat in the simple way and give up flesh food, that would free you in great measure from sickness. That is my experience. Now, I have been suffering many serious complaints, and

one of the great complaints I had was sciatica. For many years I suffered from it, and no medicine could cure it, but by change of diet my old complaint disappeared in course of time. So I can understand that if people would give up flesh food and take other precautionary measures, I can not see why they should get sick, why they should get the gout or rheumatism. And now one of the sicknesses of the civilized people is appendicitis. This is a new disease. I believe it arises from too much rich food, too much luxurious living, from what we call the most civilized life. Of course, civilized life is very good; but in the way of living, it is not good for health in regard to diet, and, as Doctor Kellogg would be able to tell you, appendicitis is almost solely due to the way we eat. It is the accumulation of poisons in the internal organs. Therefore, ladies and gentlemen, if you wish to be in perfect health, you should first of all be careful in what you eat.



MINISTER WU TING FANG

I am glad that so many ladies and gentlemen are staying in this great institution. Here you find not only a wholesome diet upon which we can live, but the surroundings and environments are much pleasanter and more healthy. One of the influences, you know, we need, which is just as important as food, is pure, fresh air; and here we get good, pure, fresh air; and if you practice the deep breathing, how to breathe, you will be always in good health.

Now, the next question is when we are in perfectly good health, healthy and strong, why should we diet? If we are not sick, why should we not continue to live? Therefore that is the next question which concerns us, and we ought to investigate, and it has been

proven, according to the best scientific authority, that men ought to live a long life. Now, what do you call long life? I think that this is a point we have not got the right notion of. We think seventy years is a good, long life. Eighty—O, a very long life! And that is the notion all over the world, in China as well as here. We call it a cheerful funeral. That is a narrow notion of the matter. Why should we be contented to die at seventy, or seventy-five, or eighty or ninety, or even one hundred? For myself, now I have discovered this way of living, and I am in good health, I would be very sorry to die, to leave this world in good health at one hundred. Perhaps a good many of you would be glad, but I would not. You may ask me, How long do you want to live? I don't like to tell you, because you may laugh at it. You are laughing already, before I tell you. But if you do as I do you will live a long life the same as I do, and you can all keep me in company.

Our mind plays a very important part in our life. If our mind thinks that we are old, surely we get old. You see this is a race habit. We are brought up wrongly altogether, because we have to eliminate these thoughts. Twenty—that is called young; thirty or forty we call middle age; fifty or sixty we call getting old, getting on in years, and when a man gets on to sixty, or seventy, he says, "I am old; I can not do this." You see, he is running away with that notion; and if anything is to be done which requires strength, a young man must do it, you say, but "I am old now, I can not do it." If you think of yourself that you are old, you will surely get old. You think, "Oh, I have not got many years to live; I will only live about ten years more, and die," surely you will die in ten years.

One of the things I am always confronted with is people who ask me, "How old are you, Minister Wu?" I don't like this question. I don't mind telling him how many years I have passed, or have lived on this earth, but I don't like the way he puts the questions to me. He said, How old, old,—what is that—old? If he should put it in another way—"Minister Wu, how young are you?" then I would tell him. Of course, if he does not want to flatter me, he can put it this way, "How many years have you passed?" Then I will tell him; but to say, "How old are you?" You see, I have gray hair now, but I did not know of this doctrine before. Now I am determined to stop the growth of gray hair in my head; and that is what I am doing. I have been successful because I have got the young notion. Of course, these gray hairs in my head I can not turn into black, but I will stop further growth of gray hair. What will grow will be black, I hope, and I will hope it and believe, but I want you, ladies and gentlemen, to do the same thing, always entertain the notion that you are young, that your hair will continue to remain the same color as it is, not to change to gray. Make up your mind to think of young things, of cheerful matters; and I would advise you not to get angry, not to get worried, because that brings on depression, and that, you know, will make you appear to be older than you are. Supposing your son

(Continued on page four)

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THE TEST OF VEGETARIANISM

A LEADING paper of the Australasian colonies, the *Melbourne Age*, recently contained an extended and somewhat sarcastic article on the subject of vegetarianism, as it was pleased to style the reform in diet. The ethical beauty of the theory was freely admitted; the humane feature which permits all creatures to enjoy the gift of life without being slain to gratify a taste, was fully recognized; and now all that remained for the advocates of the vegetarian system of diet was to show by actual demonstration the advantages of their practice in practical living. This, the paper claimed, the system had so far been utterly unable to do.

But admitting, as the *Age* does admit, the cleanliness and ethical perfection of the theory, we have a sufficient cause for pushing its claims upon people who have any appreciation of the esthetic in practical life. The devouring of flesh, the shedding of innocent blood, the living in grease, the presence of diseased conditions,—even if there be no other considerations, should have no small weight with people who love and cherish the clean and the beautiful.

Then, there are very few people who do not admit the still higher claim of humane feeling, that each innocent creature has a right to the precious gift of life. We bipeds, because we have the power to do so, have no right to disregard the happiness and right to life of the creatures dependent upon us, just to gratify a particular appetite while we are surrounded by an abundance of other foods which supply all our necessities. A visit to a slaughter-house where hundreds and thousands of creatures daily pour out rivers of blood amid pitiful bleatings and cries for pity, is enough to arouse in any uncalloused heart a feeling of the profoundest indignation at such wholesale and murderous wantonness.

Were there no other considerations than these which are universally admitted, the cause of a fleshless diet would have sufficient claim to enforce it strongly upon all enlightened and conscientious minds who pause to give it thought.

But we are by no means willing to admit for a moment that a vegetarian diet does not produce all that is claimed for it in the health and happiness of those who adopt it in a consistent and intelligent manner. And these restrictions are necessary; for there are plenty of people who make a loud profession of vegetarianism, and perhaps carry it out on the point of abstaining from flesh foods, but who are utterly regardless of the other principles which govern right living. From the considerations of hygiene alone there are many practices in vogue in civilized society, and many methods of cooking and eating more detrimental than the eating of a moderate amount of sound flesh. Some people have the idea that to discard the use of meat is the acme and whole thing in food reform. But there are other habits even more pernicious that are in vogue, and which cry out for reform.

For instance, the ordinary bill of fare at hotels is an abomination. Such a mixture and conglomeration as the average man swallows, and the manner in which he bolts it down his gullet, are enough to kill the whole fraternity of hotel-fed men in a week if it were not for the wonderful patience and endurance of the human system and the merciful care of a long-suffering Providence, which holds men in being in spite of their awful ways. Soups, salads, vegetables, entrees, roasts, pickles, hot sauces, milk, tea, oysters, shrimps, fruits, puddings, pies, coffee, cigars, grease, condiments, drinks, ices, hot stuff, etc., etc., not eaten, not chewed, and decently swallowed, but gulped down, washed down, jammed down, any way to get it down.

Someone comes to himself enough to say, "I will cut out the meat," and then he imagines he has done the whole thing, and wonders why he does not get well, and people who see him laugh at his vegetarianism. If our carping friends will come to a place where the food reform is rationally lived out, they will have no difficulty in finding practical proof of the utility of vegetarianism. Thousands of people each year are coming to the Sanitarium and reaping the practical benefit of rational and hygienic diet. Not a man or woman ever undertook the work of reforming his or her diet and did it in a scientific and reasonable manner and did not receive great benefit from so doing. Vegetarianism, like every other good cause, deserves to be judged upon its merits when rightly presented, and not by the caricatures and abuses of it in the hands of ignorant and inconsistent professors of a cult or a fad.

One might as well judge Mr. Roosevelt's looks by the cartoons one sees as to form an opinion of a cause without actually knowing it.

THE ART OF LIVING LONG

(Continued from page three)

or daughter has done something which displeases you, and gives you cause, you think, to be in the raw; but you should not do that; you are to keep your temper. The moment you become angry, your blood changes, and poisons are formed that would shorten your life. Therefore, if you want to live a long life, that is one thing you should guard against—not to be angry, and not to worry. Take things in an easy, calm way.

Look on the bright side of life; and then, too, entertain love, I mean pure love, to all, even to your enemies. It is this way: If you entertain enmity and malice against a person, your mind gets corrupt, becomes bad, vicious, no good to you; and then a vicious man, a bad man, can not live a long life. But if you entertain love to all men your temper will be sweet and life will flow smoothly and quietly along.

WHAT IS CATARACT IN EYE

(Continued from page one)

cataract is an opacity of the crystalline lens of the eye or its capsule. This figure (see cut), which is a cross-section of the eye, shows the different structures which I will mention. The lens of the eye is a transparent, elastic body, perfectly clear and colorless, at least in a young person, though it may lose all these characteristics in elderly people. It is inclosed in a capsule which is also a transparent membrane surrounding the lens, and which extends out into a thin film on all sides and supports the lens in its place. This suspensory ligament is attached to the ciliary body of the eye, which is located just back of the attachment of the iris. The ciliary body is a muscle by means of which the eye focuses itself upon objects at different distances from it.

There are three coats of the eye. The outer coat is called the sclera. It is a thick, horny coat, the object of which is to keep the eye in shape. It is very important that the eye should be retained in shape. If the eye were continually changing its shape a person could perhaps see very well at times, and again could not see at all well. The cornea is a continuation forward of the sclera, but it is perfectly clear and transparent.

The second coat of the eye is the choroid, a thin layer, which is the vascular coat of the eye. It supplies nutrition not only to the sclera on the outside but to the structures within it. It is very rich in blood-vessels, and not only supplies nutrition, but contains considerable black pigment forming the black coating of the eye, which is just as necessary as the black lining of a camera,

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an apparatus to which the eye may very properly be compared. The inside of the camera is painted black so that the rays of light entering the camera and falling on the sensitive plate will not be reflected back and forth within the camera, which would cause a blurring of the image upon the sensitive plate; it is to prevent this reflection that the interior of the camera is dull black.

The third layer of the eye is the retina, corresponding to the sensitive plate of the camera, it being an expansion of the optic nerve where it enters the eye. The ciliary body, which is a continuation forward of the choroid, is located just behind the attachment of the iris and supports the lens in its capsule and regulates the focusing power of the eye, as previously explained. This body is a muscle and also is a very important nutritional center, supplying nutriment to the lens and other adjacent structures.

Immediately in front of the lens is the iris, a circular curtain which regulates the amount of light entering the eye. Behind the lens is the vitreous chamber containing a viscous substance somewhat thicker than the white of an egg in consistency. In front of the lens and iris is the aqueous chamber containing lymph. Thus the crystalline lens of the eye is suspended between the aqueous humor and the vitreous chamber by the suspensory ligament which is attached to the ciliary body or muscle.

Cataract is an opacity of the lens or its capsule, which prevents rays of light from entering the eye. But before we discuss cataract, we will speak of the changes which take place in the lens in a normal person during life. First, I will describe the mechanism of accommodation, or focusing power of the eye. The lens changes its shape, and thereby the focus of the eye, by its own elasticity. It is not simply compressed at its periphery by the ciliary muscle, but the ciliary muscle in contracting relaxes the suspensory ligament, and then the lens of its own elasticity becomes more convex. The lens in the eye of a child ten years of age is perfectly elastic, so that the child can see perfectly objects at a distance as well as fine print three inches from the eye. From this age on, there is a gradual hardening of the lens, beginning at its center and progressing towards its periphery. This change is so gradual and constant that at twenty years of age the nearest point of distinct vision is four inches, and the near point of distinct vision gradually recedes until at sixty or seventy years of age the average person has no accommodation at all, and therefore requires glasses for near vision. I have told you something of the normal changes which occur in the lens as one becomes older. This hardening of the lens takes place in all individuals alike.

But in some individuals the lens not only becomes harder, but it may become opaque. The latter is a pathological process which does not ordinarily take place during the usual span of life; although, according to Dr. Knapp, it would come to all of us provided we lived long enough.

The most common form of cataract is senile cataract, or cataract occurring in old people. I will first describe this form of cat-

aract and afterward mention some of the other less common forms.

Opacification of the lens usually progresses slowly. It may begin in the center of the lens and gradually fill the pupil, or it may begin in the outer parts of the lens and gradually encroach upon the part of the lens covered by the pupil. There is no pain or other symptom present except a gradual loss of vision. Vision for fine print first fails, and glasses can not be obtained to restore it. Gradual failure of ability to read coarse print ensues, and when the cataract is fully developed, the patient is unable to count fingers held immediately in front of the eye. But cataract uncomplicated by other diseases does not make one absolutely blind. When fully developed, one can still discern light. The location of a window may be distinguished, and moving objects immediately before the eye may be observed, but their form is indistinguishable. A number of theories have been advanced as to the cause of these lens opacities. Their origin is not yet fully understood, but the opacities are thought to be due either to a loss of water by the lens substance, or to nutritional disturbances in the eye. Diseases of the ciliary body which supplies nutrition to the lens are apt to produce cataract. No doubt such general diseases as arteriosclerosis, Bright's disease, heart lesions, and diseases of the blood have much to do with their development. Diabetes is a well known cause of cataract. The high specific gravity of the blood, from its increased sugar content, is supposed to abstract water from the lens substance.

While advancing age is the most common cause of the affection, cataract may occur in young persons, it sometimes occurring even in the new born. There is this difference, however, between cataract in the young and cataract in the old. In young persons, the

lens substance is soft, and we have soft cataract. In old persons the lens is hard, and we have a hard cataract, the treatment of the two conditions, as we shall see later, being entirely different. Again, cataract may be either progressive or stationary, senile cataract being a typical form of progressive cataract. Sometimes opacities may occur in the lens of the eye, of greater or less extent, which never increase and completely cut off vision. These opacities are usually sharply defined, and allow sufficient light to pass between them to afford good vision. I have in mind a patient whose eyes I examined about twelve years ago, whose eye apparently contained a beginning senile cataract. This patient I have examined on numerous occasions, even up to a few months ago, and I have observed that the original opacities have remained unchanged and the patient still has good reading vision, although she is about sixty years of age.

Another important cause of cataract is injury to the lens of the eye. A needle or other sharp instrument might pierce the coats of the eye and do no harm at all, provided no infectious germs were carried into the interior of the eye, and provided the lens of the eye was not wounded. But the slightest puncture of the capsule of the lens is apt to produce a progressive cataract. When the capsule of the lens is wounded, the aqueous humor comes in contact with the lens substance, and this fluid has the property first of causing the lens substance to swell up and become opaque, and secondly of dissolving the lens substance; so that when the lens is wounded, even to slight degree, an opacity immediately starts at the point of injury and may progress until a fully developed cataract is formed. It is this property of the aqueous humor which enables us by a very simple operation to cure soft cataract,—in

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other words, cataract occurring in young people or in the new born. Whenever a child has been given initial vision in this way, the operation is usually heralded by the newspapers as a wonderful accomplishment. Ordinarily, operation on this sort of cases takes but a couple of seconds, and is the simplest of all operations. A knife needle is simply made to pierce the coats of the eye and enter the lens substance, thus allowing the aqueous humor to have access to the lens substance. The aqueous humor first causes the lens fibers to swell up and become more opaque, and finally completely dissolves the lens substance, leaving the pupil clear and black. It is sometimes necessary to repeat this procedure several times before the sight is entirely restored.

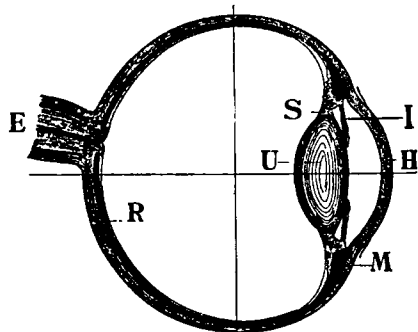
What can be done to prevent the occurrence of cataract, especially the progressive cataract of old age? It can not always be prevented. But no doubt anything which will improve the general vitality of the patient, improve his circulation, and especially the circulation of the eye, will tend to retard the development of cataract. The same course of living which we advise to prevent arteriosclerosis, which really is the characteristic thing in senility, is advisable in the prevention of cataract. Anything which will stimulate the circulation in the eyes themselves, such as alternate hot and cold applications, and massage about the eyes, are measures to be recommended. The misuse of the eyes without the use of needed glasses is no doubt an important factor in the development of cataract. Certainly the use of glasses when needed will better conserve the eye against such diseases as cataract than the putting off as long as possible of the use of correcting lenses for old sight. An error commonly entertained by individuals is the supposition that the wearing of glasses increases the need of glasses.

During the last few years various remedies have been advertised for absorbing cataract, and a large array of testimonials in their favor have been adduced. These so-called remedies have been faithfully tried out by numerous scientific observers; but no scientific person, I think, has found any good results from these absorbent remedies. I have examined many patients who have given them a faithful trial, but have yet to find a patient with cataract who thought he was permanently benefited. When cataract is first beginning, especially if it is located in the center of the lens, a medicine put into the eye which will cause a moderate dilatation of the pupil will give immediate improvement in vision on account of the enlargement of the pupil and the consequent gain in clear space through which light may enter; but manifestly such a treatment is of no value in curing the cataract, for when the cataract is a little more fully developed it would be of no avail whatever. This may account for some of the testimonials which have been obtained for absorptive methods.

What can be done for senile cataract? The only treatment I know of is its removal, in other words, the removal of the crystalline lens from the eye. After the removal of the lens, convex glasses may be worn to take the place of the lens and distinct vision thereby obtained. Statistics show that in

the hands of competent surgeons about ninety-eight per cent of cataract patients obtain good reading vision as the result of operation. These figures, together with the fact that the patient has the chance of vision from operation on two eyes, gives the patient almost a surety of receiving reading vision from at least one eye.

Cataract is not one of the most unfortunate affections of the eye. There are many affections for which little or nothing can be done to restore vision. Cataract is very accommodating. It usually occurs in one eye before it appears in the other. When it is advanced sufficiently in the first eye to interfere with reading, the other eye is still able



CROSS SECTION OF THE EYE
E. Optic Nerve.—R. Retina.—M. Ciliary Body.—S. Suspensory Ligament.—U. Crystalline Lens.
—I. Iris.—H. Cornea.

to read, and as a rule, the cataract is ripe and ready for operation in the first eye at about the time vision fails for reading in the second eye; so that if the operation is performed at the most opportune time, the patient as a rule is not shut off from reading vision at all. The operation for cataract is performed under local anesthesia with very little or no pain. The operation requires considerably less than a minute, and if no unpleasant complications arise, there is very little pain following the operation. We therefore conclude that cataract is not by any means the most unfortunate affection of the eye.

SICK HEADACHE AND ITS ORIGIN

(From a parlor talk by Dr. W. H. Riley)

THERE are a great many different causes of headache; among them are indigestion, disease of the kidneys, diseases of the eye, ear, nose,—in fact, there are many causes of headache. We have one form of headache called sick headache, that many people think

is a disease of the stomach. In reality it is not a disease of the stomach, but of the nervous system. It is a curious fact that these sick headaches run in families, or that they are hereditary. Not long ago I examined a young man with sick headache, and there were six other members of his family who suffered with the same disease; and where we find one we almost always find other members of the family or relatives who have the same trouble. Some German writers tell us that as much as fifty per cent of all their cases of sick headache are inherited. These sick headaches come on in the form of attacks, and they usually begin rather early in life, perhaps at from ten to twenty years of age. The attacks may begin in the morning, the patient very often has numbness in his hands, cold hands, and sometimes flashes of light before his eyes like zigzag flashes of lightning in the sky; or he may have a dimness of vision like a veil drawn before the eyes; or he may see spots before the eyes. Soon the headache comes on and it is usually located in the temple or back of the eyes, sometimes in the back of the head. From the initial spot it spreads, though very often it is confined to one side of the head, but in other cases it spreads over the whole head, and the attacks are very severe.

The patient wants to get away from everybody, wants to get away from the light, wants to get away from noises and feels depressed. He is pale, his pulse is slow and the heart full, his blood-pressure is high; his hands are cold and his feet are cold. At last, perhaps after a few hours, or two or sometimes three days (very seldom longer than three days), he is sick at his stomach, vomits, and as soon as he empties his stomach he is relieved of the headache. So he thinks, and his friends think, his headache was due to some disorder of the stomach; but as a matter of fact, the nausea and the vomiting are simply results and symptoms, and not the cause. The real trouble is in the nervous system. In different cases there is a very great modification of these symptoms. Sometimes the patient does not vomit. Sometimes headache comes on in severe cases every day, and it is very trying and depressing.

HEALTH LECTURES APPRECIATED

THE *Floral* (Alabama) *Democrat* of a recent date contains a communication from one of the local Chautauqua authorities relating to the work of Dr. Carolyn Geisel at their assembly last year. It is only a sample

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Applicants received whenever vacancies. The next class will be organized the first of April, 1910. For full information address

Sanitarium,

Battle Creek, Mich.

of the testimonials we see concerning her platform work in behalf of the Battle Creek Sanitarium principles. As most of our readers know, Doctor Geisel is constantly employed in the lecture field which extends over the length and breadth of our country, in presenting the "Battle Creek Idea" of the Gospel of Health. Her labors are astonishing, and yet they do not nearly approach the fulfilling of the demands. She has gone beyond her strength and for a few weeks is obliged to recuperate. We are glad to report that she is regaining her strength. This is what the *Democrat* says:

I think when I say the very best feature of our last year's Chautauqua was the series of lectures delivered by Dr. Carolyn Geisel, that the assertion will be concurred in by many of our people who heard her; and I do not think any of the other splendid lecturers and entertainers will feel any jealousy at the remark.

One would expect a health talk to be a rather dry affair. And a woman doctor! We did not expect much of her, and we supposed that Dr. Davidson had picked her up somewhere and put her in for padding, just to fill out the program.

But Dr. Geisel! How she surprised us! She introduced us to ourselves. She made A B C work of anatomy, physiology and hygiene. From the moment she stepped on the platform until she left it she held the undivided attention of her audience. Even little children hung on her words as on a fairy tale, and she often moved her audience to tears.

One of our physicians said to me at the conclusion of her second lecture, "Why don't our doctors come out and learn something?" They did. Nearly all of them heard one or more of her lectures, and one of those who heard only her last lecture said, "That lecture was worth the price of my season ticket. I have attended several courses of lectures in medical colleges, but I never heard such a lecture as that."

When we learned what her lectures were, the Chautauqua directors requested Prof. Hanna to bring the entire school to hear them. They did our children incalculable good. The same will be done again this year.

Dr. Davidson has secured her for this season. Those who did not hear her last year should not miss this great feature this year. Lay down whatever you have in hand and hear these great lectures. You will never regret it. If you do not live in Floral, come here and board during her week.

W. C. T. U. MEETING AT THE SANITARIUM

UNDER the direction of the Woman's Christian Temperance Unions of the city, a very pleasing and instructive lecture was given in the main parlor of the Sanitarium last Sunday afternoon.

The meeting was opened by the singing of several hymns, the devotionals were conducted by Rev. Hugh Kennedy of the M. E. Church.

Miss May Wood pleased the audience with a solo, "Jesus Calls Us," accompanied by Miss Ruth Oliver.

Our president, Mrs. A. J. Read, in her pleasant way introduced the speaker, Mrs. Fields, of Ann Arbor.

Mrs. Fields began by telling a story, which in substance was, "The Lord made a visit to

earth, and after going to city and country, he wondered what, of all he saw, was beautiful and fair enough to take with him home to heaven. He selected a rose, a baby's smile, and a mother's love. When he returned to heaven, he examined his treasures, and found the rose withered, the smile gone, but the mother's love was strong and beautiful as ever." Mother love will endure through all and under all circumstances.

Frances Willard used to call the W. C. T. U. the organized Mother Love. Many causes led to the organization of the W. C. T. U., and since that time great and world-wide work has and is being done.

Many well-informed people do not seem to realize the amount of good the W. C. T. U. is doing, but they do faithfully and prayerfully the work they feel called to do, backed by the great and mighty God. Many splendid things were said which are not alluded to here. Mrs. Fields is an able speaker, and we were made better and stronger by having her with us.

The meeting closed with another solo by Miss Wood. E. N.

A PLEA FOR BROWN BREAD

A PLEA for the use of wholemeal bread, especially by those who have the care of children, is made in an influentially signed circular just issued by the Bread and Food Reform League of Great Britain.

It is shown from official documents that the annual consumption per head in the United Kingdom of corn, wheat, meal and flour is nearly 355 pounds, and that in working-class families, with incomes ranging from twenty-one to fifty-two shillings a week, two-fifths of the weight of food consumed consists of bread and flour. Bread, it is pointed out, is almost the sole diet of numbers of poor children.

"Owing to the present great distress and general shrinkage of incomes," it is stated, "a supply of nourishing bread is of vital national importance. Chemistry proves that the whole of the wheat grain contains more nutriment than the part usually made into fine white flour." Experiments in Germany are quoted which show that from finely ground wheat meal the body assimilates two and a half times more of the mineral substances which form bones and teeth, and

which nourish the brain, nerves and tissue, than from fine white flour.—*Montreal Standard*.

ARRIVALS

FOLLOWING is the list of arrivals at the Battle Creek Sanitarium for the week ending February 27: Frank Hushand, Pa.; Frances B. Whitton, Detroit; Wm. Greenberg and M. R. Union, O.; Miss J. M. Wilber, Mich.; Mrs. Wm. S. Perdine, Ind.; Miss Agnes Arner, Mo.; Chas. M. Way, Minneapolis; Mary S. Hampton, Japan; Benj. Moline, Chicago; N. F. Reid and wife, Pittsburg; Mrs. M. Rauls, O.; Edw. Berthald, Ill.; Lilly M. Busch and Mrs. J. B. Busch, St. Louis; Angela Hernandez, Okla.; Norma M. Eldred, City; W. H. Wickline, Ind.; H. A. Darrell, New York; Rev. C. J. T. Frincke, Grand Rapids; E. H. Jones and Josephine Jones, Des Moines; L. H. Jones and Vie Jones, Ia.; C. S. Aldrich, M. D., Calif.; S. F. Kallenbaugh, O.; L. A. Miller, Chicago; F. E. Mayall and wife, N. D.; Mrs. Geo. W. Morrow, O.; Evelyn Perry Blanchard and F. L. Blanchard, Tex.; Ray L. Cooper, N. D.; August Schnell, Brooklyn; Mary E. Weber, Detroit; Thos. M. Ewan, Jr., Jersey City; Fannie Cumming, St. Louis; F. M. Harned and W. R. Meredith, Ind.; Mrs. S. Farlon and Mrs. Wm. Hickman, Ill.; Z. L. White, O.; E. J. Van Horn, O.; M. H. Barron, Wis.; J. E. Bartlett, Mich.; D. L. Jones, Ill.; Mrs. G. Gunderneam, Brooklyn; E. G. Gorton, Chicago; H. G. Butler, Mont.; Mary J. Dewey, Ill.; Mrs. J. H. Rogers, Ill.; Mrs. C. A.

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The Two-Year or professional course, intended especially for Dietitians, Lecturers, and Demonstrators, includes all the studies of the one-year course, and in addition Advanced Chemistry, Advanced Physiology, Sanitary Science, Bacteriology, and Hygiene, and Advanced English.

ONE SPECIAL FEATURE of this school is that students are given an opportunity to meet a large part of their expenses by work along lines which aid them in their studies.

**The Battle Creek Sanitarium School
of Health and Household Economics**

**BATTLE CREEK
MICHIGAN**

Ruff and son, O.; O. E. Mald and wife, Mich.; C. C. Kislleher, Wis.; Mrs. Mary Hall and Mrs. Elmer Hall, Mich.; Mrs. E. E. Crumrine, Pa.; H. B. Fawcett, O.; I. M. Clark and Miss Kay, New York City; Mae Jones, S. Dak.; C. A. Gibson, Tenn.; Mrs. E. E. Perrin, Ill.; Catherine W. Barker, Detroit; Mrs. S. E. Purdy and Mrs. J. H. Cronk, N. J.; Philip H. Clifford, New York City; J. J. Horton, Chicago; D. D. Donahue, Ind.; H. T. Myers, Chicago; Miss Leah Walker and Miss Cecil Walker, Mich.; Alfred Johnston and Geo. Castle, Toronto; W. C. Stith, St. Louis; Ira Miller, Mich.; W. J. Durham and wife, Wis.; John B. Campbell and son, Ind.; John A. Wegener, Detroit; Mrs. W. O. Jelf, Indianapolis; Rev. C. B. Wetherell, Chicago; W. F. Fraser, Pittsburgh; Theo. H. Main, Chicago; H. Haendle, Detroit; Miss Dolese, Chicago; J. H. Blaine and Mrs. J. H. Blaine, Ill.; Mrs. C. Kirkland, City; D. Burnham, Mich.; John Lyman, Syracuse; Mrs. C. T. Field, Mich.; Miss M. Mackay, New York City; W. A. Coulan, Detroit; Mrs. J. E. Bartlett and two children, and Miss Ecker and child, Mich.; H. Emerson, New York City; Mrs. Geo. C. Paul, Ill.; A. A. White and wife, Minn.; F. Wolf, City; S. S. McClure, New York City; A. C. Olmstead, Mich.; Doctor Clara J. Swan, Mrs. L. E. Parsons, L. E. Parsons, Wm. T. Rogers, O.; Mrs. W. D. Babcock and Miss M. Frances Babcock, R. I.; Edwin C. Nichols, City; Mrs. W. C. Drever, New York City; Mrs. A. P. Gilmore, Isabel Gilmore and Mrs. M. E. Ramey, Chicago; Mrs. E. E. Crumrine, Pa.; Miss E. M. Dawson, Cleveland.

News and Personals

Lawyer Burns, of Kankakee, Ill., left us last week, after spending some time in the institution.

F. E. Belden, of the publishing department, has gone to Minneapolis on a business trip.

Theo. H. Main, of Chicago, spent Sunday with his wife and daughters, who are guests at the Sanitarium.

Dr. J. W. McKean gave a very interesting talk on Siam at the missionary meeting held in East Hall on the 27th.

Miss Hazel O'Neal, of Fremont, Mich., arrived at the Sanitarium last week, and will take up the nurses' course in the near future.

Rev. Jas. H. Pettie, of Japan, spoke in the parlor Sabbath afternoon on the "Four Colossal Alls" of our Saviour's commission: "All powers given unto me, teach all nations, to observe all things, whatsoever I have commanded you. I am with you all the days." Mr. Pettie has been in attendance on the recent medical missionary conference and with his wife is tarrying for a short period of rest and treatment.

Dr. Florence J. Holt, a member of the graduating class of last year of the American Medical Missionary College, has been for some time doing editorial work for Doctor

Kellogg, in the arranging of manuscript, etc. She recently resigned her position and on March 1st departed for Colorado for the purpose of fully recruiting her health and strength. Doctor Holt has China in view as the field of her future labors, having some years ago devoted her life to medical missionary work.

The Layman's Missionary Movement was inaugurated in Battle Creek by a banquet and public meeting held in the First Methodist Church on the evening of March 2. Over three hundred men partook of the banquet and addresses were given by Mr. W. A. Brown, of Chicago, and other speakers. Judge Walter H. North presided with ability and delivered a telling address for Christian missions. It was enthusiastically voted to let at least double the donations to missions.

Rev. Philip H. Clifford, of Brooklyn, N. Y., field secretary of the South African General Mission, was a guest at the Sanitarium over last Sunday. He preached Sabbath morning in the chapel a very effective discourse. The mission which he represents is more popularly known as Dr. Andrew Murray's Mission, which has done a great work for the Kafirs and other colored people of South Africa. It is still engaged in pushing out into pioneer work, has extended its field to the northern limits of Rhodesia. It requires an income of about \$84,000 per year to support its work, and this it receives through wholly volunteer contributions, no collection ever being taken, and no direct appeals for financial help made.

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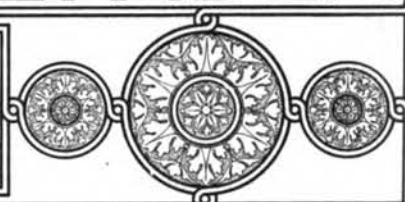
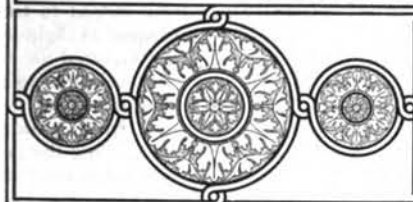
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Mr. Horace Fletcher will give a course of lectures on vital economics, and Mr. John F. Stapleton, formerly of the Yale Gymnasium, a special course on theory and practice of Swedish gymnastics.

The Battle Creek Sanitarium School of Physical Education
BATTLE CREEK, - - - MICHIGAN

THE BATTLE CREEK IDEA



Vol. III No. 14

BATTLE CREEK, MICH., MARCH 11, 1910

Price 2 Cents

HEALTH PERILS IN THE UNITED STATES

Portion of a Lecture Delivered at the Battle Creek Sanitarium, by Professor Irving Fisher

It is astonishing to me to see the interest that is growing in this country in what I

How Water Cures Disease

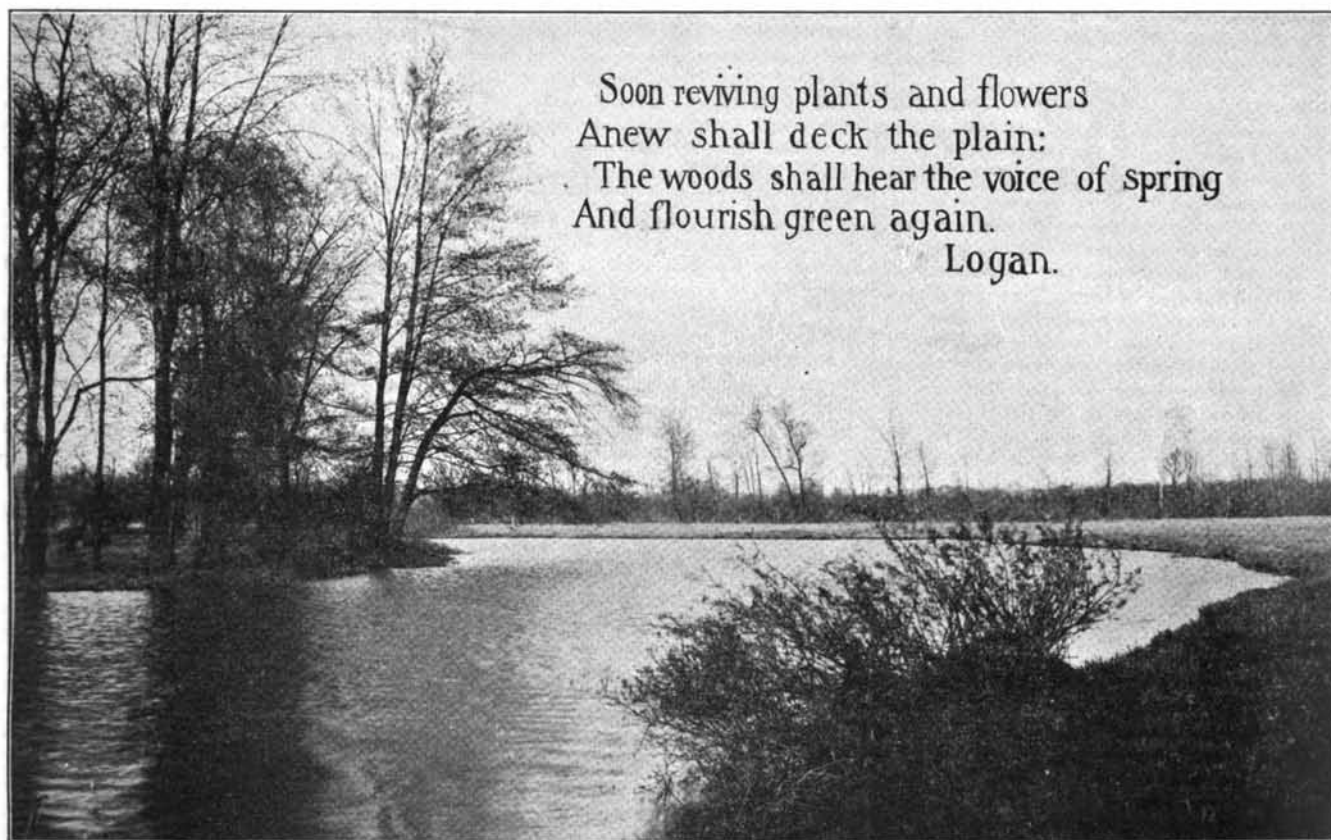
Doctor Riley Tells His Patients how Water Applied Externally Effects the Cure of Internal Disease

HERE at the Sanitarium we do not depend so much upon drugs for treating the sick as

ALL CATARRH OF INFECTIOUS ORIGIN

According to Dr. J. H. Kellogg, Who Describes the Fundamental Cause and Treatment of this Malady

UNDOUBTEDLY intestinal autointoxication is one of the principal causes of nasal ca-



Soon reviving plants and flowers
Anew shall deck the plain:
The woods shall hear the voice of spring
And flourish green again.
Logan.

SCENE ON THE KALAMAZOO RIVER NEAR BATTLE CREEK

would like to call the economies of health,—to see the number of people who are beginning to realize that the health conditions in this country are very far from what they ought to be. When the Cuban war was finished, one of the first fruits of that war was the cleansing of Havana, and, as a consequence, the improvement of health conditions both in Cuba and in the United States. The death-rate in Havana was cut in two inside of two years. We know that through

(Continued on page three)

we do upon what we call natural remedies. We find that other things are more valuable in the treatment of disease than drugs, so we use the other things. One thing which we use a great deal is water. And the question is often asked how water applied on the outside of the body cures diseases of the internal organs. I answer, first, it is not the water that does the curing. The virtue is not in the water. It is the cold or the heat that is in the water that produces the desired effect.

(Continued on page five)

tarrh, as it is well known to be of bronchial catarrh. I think I hear a number of people saying to themselves, "How is it possible that mischief in the colon could cause trouble in the nose?" I have no doubt that some of you who are suffering from catarrh, have learned from your own experience that whenever you have a bilious attack your catarrhal trouble is worse. Whenever there is an evident attack of indigestion and disturbance in the bowels, especially when there is inactivity there, the catarrhal trouble is

aggravated. The philosophy of it is simply this: The human body is normally proof against disease, catarrhal disease as well as other disease. Catarrh is simply an infection. It is coming to be recognized more and more that all catarrhs are due to infection. Even a common cold is an infection. When one says, "I caught a cold," it is just as reasonable, just as proper an expression as when one says, "I caught measles, I caught smallpox." One catches a cold from somebody who has a cold. If one were living in a country where no one had a cold, he would not be likely to have a cold. There was a certain island up in the North Pacific where there used to come a ship once a year, and the inhabitants were entirely free from colds, influenzas and catarrhs; but when this ship came there it was soon noticed that within two or three weeks afterward there would be an outbreak of influenza. A common cold is unquestionably an infectious disorder, and it must be classed with other contagious diseases.

COLDS ARE INFECTIOUS

Colds and catarrhs are simply due to an acute infection of the nose. "But," you say, "I didn't take cold until I got a chill. I was perspiring, got my feet wet, I neglected to exercise while my clothing was getting dry, and I got a cold; doesn't that prove the negative of this theory?" Not at all. There are always present about us, upon us, within us, the bacteria which are capable of producing influenza; we are constantly in contact with these germs. Our bodies are continually infected by them. There are always in the mucus of the nose, gathered from the air which we are continually inhaling, caught and collected in the nose, large numbers of these cold-producing bacteria. They are in the saliva, they are in the throat, they are floating in the air all about us. When we are well, when every organ is intact, these bacteria can not obtain a foothold; they can not grow, and they can do no harm. But when one takes a cold, that is, when one has been perspiring very freely and the perspiration is suddenly checked, the bodily machinery is deranged, the toxins which are produced in the body accumulate and the resistance of the body is lowered so that the ability to fight these germs is lessened, and then they are able to obtain a foothold, and they begin to grow.

There are great numbers of these germs in the nose all the while. The nose is the strainer that filters them out to protect the lungs. That is the reason why we have catarrh in the nose so much more often than we do elsewhere.

There are a great many different kinds of catarrh. There is catarrh of the nose, catarrh of the throat, catarrh of the lungs, catarrh of the stomach, catarrh of the bowels, catarrh of other hollow organs, catarrh of the skin, catarrh of the kidneys and the bladder. These are all subject to catarrh. Then we have catarrh of the eyes, catarrh of the Eustachian tubes, and catarrh of the ears. We may have catarrh of any mucous membrane, and we may have catarrh of the skin. When we have catarrh of the skin, it is called an eczema, or a dermatitis, or salt rheum, or

moist tetter. These are all different names for the same thing, which is catarrh of the skin. In catarrh of the skin, the skin is dry and dry scales are formed because it is exposed to the air and the moisture evaporates. In the mucous membrane, when there is catarrh, the very same thing happens that happens to the skin when it is subject to eczema, or moist tetter. The same condition is present in a catarrh of the nose or of any other mucous membrane, only the discharge is in the form of mucus. This catarrhal condition is most frequent in the nose, because there is the place where the germs are concentrating. A person takes a cold and has a chill, and pretty soon begins to sneeze, because the mucous membrane of the nose is congested, the blood is driven in from the surface so that there is more blood than ordinary; the mucous membrane is congested, the over-filled blood-vessels are pressing upon the delicate nerve filaments which run through the mucous membrane, and that pinching of those delicate nerves there is what sets up the sneezing. That is an evidence of congestion, and congestion is an indication of lowered vital resistance. Any part that is congested is weakened because the blood remains too long in the part. Instead of there being a rapid washing of the tissues with healthy blood, bringing oxygen to vitalize the cells and washing away the poisons, the blood remains so long in the part that it loses its oxygen, the parts become asphyxiated. Each individual cell is starved, asphyxiated, suffocated for lack of oxygen, because the blood does not flow with speed enough, so they lose their resisting power, and the germs which are always upon the surface of the mucous membrane are able to work their way below the surface into the tissues because the cells can not resist them. Then there is swelling of the mucous membrane, which is simply a throwing out of the serum of the blood to dissolve the germs and dilute the poisons which are formed by these germs. That is what causes the swelling. It is a defensive effort on the part of the body.

WHY A COLD GETS WELL

After it once begins, why does not this condition continue forever? One has acute catarrh, and he gets over it pretty soon, because the body acquires the power after a short time to develop antitoxins which destroy the germs and prevent their further development. That is what happens in diphtheria. If a child recovers from diphtheria, it is because its body develops antitoxins which destroy the diphtheria germs. In the same way, when one has a cold the cold is cured; his body has developed the antitoxins which destroy the cold or influenza germs. In treating diphtheria, antitoxin obtained from a horse's blood is injected into the blood of the child, so that its own antitoxin is reinforced, or, rather, is anticipated before the child has been sick long enough to get its own antitoxins developed, and these antitoxins destroy the diphtheria germs, and the child's life is saved. This same principle is now applied in various ways. We had not very long ago a lady who was suddenly taken with a chill, and we found she had blood poisoning. She had attacks before she came

here, and had another one a short time after coming here, and she seemed to have no power to create antitoxins to fight off this attack. In spite of all we could do, her system would not respond to make antitoxins enough to kill off those germs; so we telegraphed for a supply of fresh antitoxic serum which was capable of killing the particular kind of germ that was making the trouble.

After two or three injections of this antitoxin, it was simply wonderful to see how the temperature returned to normal. This method helps the body in a wonderful way; it reinforces the natural defensive powers of the body. We have no antitoxin for colds yet. We will sometime have an antitoxin for a cold, so when we get a cold we will say to the doctor, "Here, introduce a little anti-cold serum into my arm," and the doctor will do it, and it will cure it, right away. But now there is another thing that needs to be done. The antitoxic serum will cure only for the time being. When one has smallpox and gets over it, he does not usually have it again. When one has an attack of diphtheria and recovers from it, he is not likely to have it again for six weeks, but after that he is liable again. In other words, immunity lasts only a short time. When one recovers from a cold, immunity will not last more than a short time, because he can get another cold very soon.

WHAT AUTOINTOXICATION DOES

But what has autointoxication to do with this? Simply this: Intestinal autointoxication is one of the most certain ways in which general vital resistance is lowered. Now, any number of you have noticed that when the bowels are not in proper condition, little pimples are likely to appear upon the skin. Eczema or salt rheum, or something of that kind, is constantly associated, in my experience, with autointoxication, and with an inactive state of the bowels. The only thing that is necessary to keep away from this difficulty, and for the clearing up of the skin and securing a good complexion, is to keep the bowels in a very active state, so that these toxins will be rapidly removed from the body. Now, the pimple is due to the fact that germs growing upon the skin, allied to these germs that produce nasal catarrh, enter the skin, grow there, set up inflammation, and produce the pimple. Sometimes they work in deeper, and then they produce boils. Sometimes they are virulent germs, spread far and wide in the tissues, and that makes a carbuncle; and sometimes they develop deep down into the deeper structures of the body, as in the liver, for example, and in that way an abscess is formed. These all come from the same cause—lowered vital resistance. What is necessary to overcome this condition is the outdoor life, breathing cold air, living on antitoxic foods, so that the blood is pure and the tissues clean—these are the things of greatest importance in establishing improved vital resistance. And good vital resistance is the only thing that will effectually cure catarrh of any form.

HEALTH PERILS IN THE U. S.

(Continued from page one)

the efforts of Colonel Waring, of New York City, the death-rate from malaria was reduced in a very short time simply through cleaning the streets.

An increasing number of people, though as yet only an infinitesimal fraction, are increasingly realizing that it is bad economy to save money in cleaning streets, or gathering garbage, or building sewers, when the result of that penny-wise economy is the increase of typhoid fever, tuberculosis, and all the other conditions that come from overcrowding and bad sanitation in our cities today. I think the time will come when people will look upon present conditions, even in our very best cities in this country, as quite as barbarous, to them, as the conditions in Havana were to us at the close of the Spanish war; or, as a century ago, were the conditions in Copenhagen, when there had been no street cleaning for a generation. It was said that sometimes, in the filth of these streets, the horses would be mired up to their bodies. It is no wonder that in such places the average duration of life was inside of twenty years, and sometimes as low as fifteen years.

We have very few trustworthy vital statistics going back two hundred years. But those we have show that the mortality in urban districts was something frightful. The death-rate in London in three plague years, two hundred years ago, was nearly one in two of the population. Certainly we have improved our urban conditions since then. We have decreased the death-rate and increased the average duration of life.

On the surface, therefore, the world is going forward. Dr. Kellogg, however, tells us that this is only a surface indication, and that we ought not to measure our progress or retrogression by the ages in the average duration of life, but by the ages in the number of centenarians, or of very old people, in a community; and this number, he contends, is constantly decreasing. I think it is a fair question whether statistics will bear his theory out, or the theory that we are really improving; and it is that question which is implied in the subject to-night.

Are we deteriorating? or are we improving? Certain it is that the improvement is not altogether what it seems to be, for the increase in the duration of life is largely due to the prolongation of the lives of infants and, very often, of the lives of weakling infants, who under the stress of natural competition, natural selection, would have been weeded out. It is therefore a question whether the race is really better off in consequence of the added length of years to average life, an increase from thirty-five to forty-two years in the United States, or is worse off because of the prolongation of weak lives. It is certain that the death-rate in adult years to-day is greater than it was a few years ago. As Sir Lauder-Brunton, who is interested in this problem in England, in a letter written to me as president of the Committee of One Hundred, said, too much stress has been laid upon the question whether we are degenerating, as compared with the question whether we are making the best of

our opportunities; and of this I am perfectly sure, that there is room for improvement to the extent of something like one hundred per cent in all our living conditions; that there is room for an improvement of one hundred per cent in the average duration of life; that there is room for an improvement of one hundred per cent in the average physical capacity for work; that there is room for an improvement of one hundred per cent in the happiness and usefulness of the average life in the community.

Whether, then, or not we are going forward or going backward, we certainly ought, for reasons of economy, to exploit this margin of possible improvement. As my colleague at Yale, Professor Norton, in a brilliant paper read before the American Association for the Advancement of Science, a year ago, said, "Over 1,500,000 persons must die in the United States during the next twelve months, equivalent to an army of 4,000,000 persons constantly sick; and over 5,000,000 homes, consisting of 25,000,000

Thousands have been expended in stamping out cholera among swine, but not one dollar was ever voted for eradicating pneumonia among human beings. Hundreds of thousands are consumed in saving the lives of elm trees from the attacks of beetles, and warning farmers against blights affecting potato plants; in importing Sicilian bugs to fertilize fig blossoms in California; in ostracising various species of weeds from the ranks of useful plants, and in exterminating parasitic growths that appear on fruit trees. In fact, the Department of Agriculture has expended during the last ten years over sixty millions of dollars; but not a wheel of the government was ever set in motion for the elevation or cure of the heart or kidney, which will carry off six millions of our population. Eight millions will perish with pneumonia, and the ignorant parent accepts it with the resignation of the Hindu who, in the midst of indescribable filth, constantly awaits the date of the cholera."

In Great Britain there was a few years



CLASS IN THE SANTARIUM SCHOOL OF DOMESTIC SCIENCE

persons, will be more or less wretched by mortality and sickness. We look with horror on the black plague of the Middle Ages. But the black waste was but a passing cloud compared with the white waste visitation. Of the people living to-day, over eight million will die of tuberculosis, and the federal government does not lift a hand to help them."

This paper was the source of the Committee of One Hundred, and is entitled, "The Economic Advisability of Inaugurating a National Department of Health." Referring to the contrast between the activities of our government in health matters pertaining to man, and in health matters pertaining to animals, he says:

"The Department of Agriculture spends seven million dollars on plant health and animal health every year, but Congress does not directly appropriate one cent for promoting the physical well-being of babies.

ago a parliamentary investigation into the physical deterioration of the British soldier, for it was found that the British soldier, at the time of the Boer war, was unable to come up to the standard in height; and it was necessary to reduce that standard in order to get enough soldiers. The question arose, Is the British race deteriorating? It was thought of sufficient importance for a parliamentary investigation, and as a result of the investigation many views were brought out pro and con. Attention was called to the fact that the soldiers of to-day are the children of the working men of the factories of the last generation who were brought up under those unhygienic conditions for remedying which the factory acts have been passed.

One of our health perils is connected with the factory system, with an unphysiologic working day, and with child labor. We are

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A PROVIDENTIAL AWAKENING

It may well be considered entirely providential that there is such a wide-spread awakening on the subjects which relate to health and the preservation of life. Had there not been such an arousing as the world has never seen before, it is hard to say what the condition of the world would have been in a very short time. This universal interest has been incited in no small degree by the alarming prospects arising above our horizon in many directions, that threaten our very existence if left to go unchecked and unprovided for.

The ordinary habits of living, to say nothing of the excesses that are alarmingly common, are so erratic, so inimical to life and health, that measures of protection and defense become an absolute necessity to the preservation of the race. Mankind shows degeneracy in every feature of physical life. Invalidism is the rule, and not the exception. Men are prematurely old, and nervous wrecks strew the beach along the shores of our society. Insane asylums are overcrowded and demand continual enlargement. The dreadful maladies of cancer, pneumonia, heart-failure, tuberculosis, artery failure, manifested in paralysis and apoplexy and many other failures and faults, show how the human system is giving way under the stress of modern habits and the pressure of business and pleasure seeking.

Under such conditions it is very timely that wise men should open their eyes, and, beholding the wreck and ruin to which we are tending, should lift up their voices like a trumpet and show the people where we are and what we may expect if we do not heed our ways. Providentially, then, men of scientific and philanthropic minds are agitating and educating the people in better methods of living, and holding up the consequences of the reckless way in which people sacrifice their vital resources and invite the inroads of disease and death. It will be well for the race if good heed shall be given to the voices of warning. The efforts put forth in the anti-tuberculosis campaign are bearing fruit. Reforms in diet and others mat-

ters are just as essential, and must be urged upon the people in spite of those who may laugh and mock.

LEGS AND ARMS FOR TOBACCO

An enterprising tobacco company, anxious either to promote their business or in some measure to atone for the mischief it does, or perhaps both, advertises that in return for 20,000 coupons, each one of which represents a five-cent plug of tobacco, it will supply an artificial arm; and for 40,000 coupons it will provide a leg. The beneficiary may be any unfortunate person in need of these limbs and the coupons may be gathered either for or by him.

The nicotine in 20,000 plugs of tobacco would undermine the health of a large number of devotees, so that as an atoning measure it does not anywhere approach the injury and wrong inflicted. The evil effects of tobacco, however, are not seen so much in limbless bodies as in broken-down nerves, shattered memories, broken-down and diseased hearts. Now, if this company really desires to offset the damage their business is doing, let them engage to supply a brand new heart to those of its victims who have "tobacco heart" or new and healthy parts to those who have smoker's cancer. Let them furnish the poor trembling nervous wreck with a new set of nerves throughout.

Or, this being too hard, let them engage to supply the mothers of these families whose children are barefooted and whose money goes for tobacco with shoes. No doubt tobacco causes in some more or less remote way the loss of legs and arms, but there are more neglected children who owe their sufferings to tobacco than there are armless people who can trace their misfortune to that cause.

HEALTH PERILS IN THE U. S.

(Continued from page three)

having now in many parts of the country the same difficulty that was experienced in England a century ago. And while those enthusiasts who are pushing for child labor reform have undoubtedly made exaggerated statements, it is true, nevertheless, that this problem should be faced in a sane and serious way, and solved by means of proper vital statistics and physiologic studies.

Another health peril comes in in connection with our school system. President G. Stanley Hall, who has made a greater study than any other living man, I suppose, of the subject of school hygiene, and of adolescence in general in the development of boys and girls, has come to the conclusion that there is altogether too much pressure in our schools. Our school hours are too long. They devote too much time to putting something into the mind of the child, and too little time to letting that mind and the brain behind that mind develop to its proper maturity and powers.

We have a number of other problems and perils. The one which I would specially mention is the drug peril. That you heard about the other evening from a very talented speaker, so far as it applies to alcohol; and it certainly is a problem far wider than the problem of alcohol.

These three perils,—the factory peril, the school peril, and the poison peril,—are undoubtedly three of our greatest health perils; and when the public understands how much can be gained by a proper solution of these three problems and of the other health problems of the country, we may expect the race to at any rate hold its own. We have, as Professor Ray Lancaster says in his book, "The Kingdom of Man," come to the parting of the ways. The human race has made a kingdom for itself. It is the only animal



PROFESSOR IRVING FISHER, OF YALE

which has conquered nature so far as to make an artificial environment. It has established the use of houses, clothing, cooking, and revolutionized all the environment under which we live. As a consequence it has, with the good, brought in a great deal that is bad. It has invented alcohol; it has invented other poisons; it has in its housing conditions introduced bad sanitation, bad air. The tenement house problem comes out of that invention. So all of these great inventions that have produced what we call civilization tend also to produce deterioration. The problem before us is, Can we retain our civilization without going back to barbarism and at the same time prevent deterioration? Professor Ray Lancaster says yes, we can, but it is a question whether we will.

So Professor Metchnikoff, of Paris, in his

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book, "The Nature of Man," points out that the only solution for the human race, if the nature of man is going to attain perfection similar to the end of a race horse obtaining perfection, through careful breeding, is for us to apply science; and applying science involves not only scientific discoveries, but their actual utilization. As Mr. Moody said, "Conversion is not knowledge." The application of science is not the mere formulation of the science. To illustrate what Mr. Moody meant, he said in one of his inimitable lectures at Yale, "If I come down to New Haven station and get on a train thinking I am going to New York, and somebody comes along and says, 'Mr. Moody, this train goes to Boston.' I have knowledge then, but that does not prevent me from going in the wrong direction. Conversion consists in at once grabbing my bag, getting out of that train, getting into the other train that goes in the right direction." And so, when we come to the parting of the ways, as Professor Ray Lancaster says, it is not enough for us merely to know that one way is the right way and the other is the wrong way; it is important that we should shun the wrong way and take the right way.

HOW WATER CURES DISEASE

(Continued from page one)

fects. These baths, or hydiatic applications, act principally through the nervous system. You all understand that the skin contains a large number of nerve fibers. You can not prick your skin at any place with the fine point of a needle, but what you feel it, and the reason you feel it is that you have touched the end of a nerve.

As a matter of fact, some of these nerves are called heat nerves, and some of them are cold nerves; and if you take a pointed rod and move it about on your hand, you will find here and there spots that feel icy cold. In fact, I think you can find some of those points with your lead pencil even, because they respond to mechanical stimulation; but the better way to do is to take a metal rod and move it about, and when you touch certain points, the rod feels icy cold; you have touched a nerve ending that recognizes the impression of cold. These points are scattered all over our bodies in the skin, and there are other spots that likewise respond to heat and recognize it. And they, too, are scattered all over the skin. The cold spots are more numerous than the heat spots.

I am speaking of this to bring out the fact that in the skin are these different nerve ends, some of which are capable of being stimulated with cold, and some with heat. When one takes a cold bath there is a powerful impression made upon the body by the cold that is in the water; and these nerves are stimulated by the cold, and there are millions of nerve currents set in motion, traveling from the skin to the spinal cord and to the brain, where these impulses reach various centers. In the brain there are a large number of nerve centers—a center for the heart, another center for the respiration, another center for the stomach, the liver, and so on; and these nervous impulses travel inward from the skin and reach these centers; and thus the application of water stimulates the

controlling centers, and they send out impulses to the organs which they control. An impulse goes to the heart and tells it to beat slower or more forcibly, and the heart obeys that impulse; other impulses go to the respiratory organs and other vital parts of the system. So the cold and the heat act largely through the nervous system in what we call reflex action; and that is the philosophy of applying water on the outside of the body, that is how it affects the organs inside—it acts through the nervous system.

That principle is fundamental. We do not appreciate it fully, but as a matter of fact we are being stimulated all the time, whether we are taking a bath or whether we are not. These forces in the air,—heat, cold, and electricity, and other forces—are acting on the nerves of the skin all the time; and if it were not for that the machinery of our bodies would stop; it could not run, and we should soon die. We have to have this normal external stimulation, just as much as we have to have nutriment in food, air, and water; we can not live very long without it. Every physiologist, and all who understand the science of physiology, recognize this fact: it is not a notion peculiar to us here; it is simply a scientific fact.

When we give a man a cold bath, we focus, as it were, a stimulus upon his body; we make a powerful impression upon the skin, which stimulates the nerves of the skin. The impressions go to the spinal cord and the brain. They then come back to the heart, to the muscles, until all parts of the body are reached. That does not put anything into the man, but it brings into greater activity the vitality and the functions and the power that is already in the man.

The healing power is within the body, and not outside of it. When a man gets well, it is simply because his vital functions, his

vital forces, are brought into normal activity. One can not get well by swallowing a dose of medicine or anything of that kind. A man who has vitality enough in him will get well of anything, indeed, he will keep well, he will not be ill. Of course, there are some conditions that pull us down, that reduce our vitality until we do not have enough to sustain our vital functions, and that is the reason people fail to recover their health. But it is this vital force within us that keeps us alive every day, and it is that same force that enables us to overcome disease. The applications of water, and the influences of forces in the air, are simply working on that principle.

The water is simply a convenient medium for applying cold or heat to the body. If one goes out into the open air and applies cold to the body in that way, it will accomplish very much the same thing. Air is not so conveniently modified as water, although we have air baths here in this institution, where the air is driven through an ice box. The patient goes into the bath, rubs his body all over while the cold air is applied to him. It is simply another way of applying cold, and it is the cold that does the good, because the cold is a nerve stimulant in the normal sense.

When I say we must be stimulated, that we can not live without stimulation, I mean that in a normal, physiologic sense. But I do not recommend any one to stimulate artificially by alcohol or things like that. Those things really are not stimulants; they are poisons. They are sometimes called stimulants, but they are enemies which the body rallies to reject; I mean normal, physiologic stimulation. We can not live without it. We have it every day in the atmosphere about us; and when we take a cold bath, we take it in an intensified form:

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the cold is focused on the body in an intense manner; and that cold applied to the body demands that it increase its activity, and the body does it. The reason the body does it is because it recognizes the cold as an intruder, a harmful thing, so it rallies all its forces to resist it, and it is that rallying that increases the activity of all the functions of the body.

A cold bath is a tonic. By tonic we mean that the functions of the body are increased. The reason the short cold bath is tonic is, as I have just stated—that the body rallies all of its forces to repel the cold; but if too much cold is applied, the forces are depressed and the body can not rally, and then there is depression instead of stimulation. The cold bath does a number of different things to the body. First of all, it increases the force and lessens the rate of the heart-beat. It increases the circulation of the blood through the body. It increases blood-pressure, and that is often desirable. If a man has high blood-pressure, we use the cold carefully, perhaps applying it to only a part of the body at a time. But sometimes the heart is weak and the blood-pressure is low, and it is desirable to raise it; and the cold bath will do it.

The cold bath increases the number of blood-cells in the blood. To be sure, the immediate increase is due simply to the blood coming out into the vessels of the skin; but if you give a man a cold bath every day for a week, there is an absolute increase in the number of cells in his blood, and it comes from the effect of the cold bath upon the red cells and the white cells. The cold bath increases the alkalinity of the blood, and that is desirable, because in many diseases, especially chronic disorders, the alkalinity of the blood is reduced, and it sometimes becomes acid, as in diabetes, and in rheumatism. A person who has rheumatism may have acid perspiration; the sweat has an acid smell, because the person has too much acid in his blood. The blood should always be slightly alkaline.

The things I am telling you to-night are facts so far as I know, not simply theory. I have worked them out myself many times; and they have been worked out in the laboratories in our universities. Doctor Winternitz, over in Austria, who is especially entitled to be called the father of hydrotherapy in modern times, has worked these things out in his laboratory, and we have worked them out not once, nor twenty times, but hundreds of times—yes, thousands of times, and we know they are true.

Then the cold bath increases the inhalation of air in the lungs. It causes one to breathe deeper; and sometimes the nerve center in the brain that has control of the respiration, is stimulated so much by a cold dash that one has to catch his breath, and can not recover the breath for a moment; and the reason is that that center is over-stimulated by the cold; it is a sort of shock to it; but by and by it accommodates itself to the situation and one can breathe all right. It is not always a good plan to take a bath so cold as that, but it increases the amount of air taken into the lungs.

The cold bath increases the absorption of oxygen into the blood, and that is very important. More oxygen in the blood means

more oxygen in the tissues. The cold bath increases oxidation; it increases the burning-up process in the body, and the production of heat.

The constant production of heat is a very important function. The best thing in the world to stimulate that function is the short cold bath. I do not recommend the long cold bath at all, for it is depressing. Of course, heat is made out of food; it can not be made out of nothing. When one takes a cold bath, food elements are rapidly consumed, and that creates a demand for more food from which to make the increased amount of heat. Then, it increases circulation through the skin. After the short cold bath, we have what we call a reaction, the skin is aglow and feels warm and invigorated. The cold bath should always be attended by this reaction. We call it reaction of the skin, but as a matter of fact, that reaction extends all through the body. And so the cold bath increases the appetite. It increases the quantity of hydrochloric acid in the stomach, when it is below normal. For a person who has too little hydrochloric acid, a short cold bath taken once or twice a day is one of the best things in the world to stimulate the secretion of acid. The cold bath improves the general muscles, improves the nerve tone, and increases the function of the kidneys,—increases the function of every organ in the body. You will understand, then, from what I have said, that the cold bath is a general tonic, and it acts largely through the nervous system. It improves the function of every organ in the body. It is one of the very best tonics of which I know.

There is nothing that will increase the action of the heart so decidedly as a short cold bath. We can change the action of the heart with a short cold bath very much more readily and satisfactorily than it can be done with drugs. The cold bath is useful in any condition where the vitality is reduced from any cause. It can be used in a great many different ways. Just a word or two as to how it should be applied. The cold bath should never be taken when one is very tired, nor in a cold room, nor when the body is cold, or the feet cold, or when one feels chilly. A very good way to do is to take a warm bath first, and follow it with the cold bath. This is not always necessary; it is not necessary in the summer time when the temperature of the air is warm; but in winter it is a good plan to take the warm bath before the cold bath. And it should always be taken in a warm room. A very good time

to take it is in the morning when the body is warm and when the cold bath acts as a tonic.

The cold bath takes the place of exercise to quite an extent; and the business man who is sitting in his office day after day, and will take a cold bath in the morning, again in the middle of the day, and another in the evening, will find it helps him through his work very much. There is nothing that is so invigorating as this cold bath. I have dwelt upon this question purposely rather at length because I wanted to tell you in a general way something about the principles and practices of this institution, how these remedies act; and the cold bath is a good illustration of it. Of course, the hot bath, the warm bath, and all the other applications act in the same way through the nervous system, though their effect is entirely different.

QUESTION BOX DEPARTMENT

EACH Monday evening Dr. Kellogg conducts a Question Box talk in the Sanitarium parlor, where all guests and patients are at liberty to submit questions relating to health and health topics.

Q. Would like to know if malt honey does not ferment and cause gases in the stomach, or whether it is good for a person troubled with gastritis.

A. A person troubled with gas after the use of malt honey is not suffering from fermentation; it is because the malt honey is a peptogen and stimulates the stomach to make acid gastric juice. The gastric glands are stimulated by the sugar and dextrin in the malt honey. So it is not fermentation, but the peptogenic effect. The thing to do is to put with the malt honey something which will prevent its peptogenic effect, and butter or cream will do it. Fat has the effect to lessen the gastric activity.

Q. What takes place in the tissues when there is inflammation? and what causes it?

A. The inflammation is due to germs, and the irritation is the result of the poisons which are formed by the germs.

A. Why is salt injurious?

A. It is not injurious in small quantities, but it is so in large quantities, because it is

THE BATTLE CREEK SANITARIUM AND HOSPITAL TRAINING SCHOOL FOR NURSES, BATTLE CREEK, MICHIGAN

This institution offers a three years' course of instruction for women and two years for men. In addition to the usual subjects taught in hospital training schools, special attention is given to all branches of physiologic therapeutics, including hydrotherapy, radiotherapy, phototherapy, kinesotherapy, or manual Swedish movements, and massage.

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Applicants received whenever vacancies. The next class will be organized the first of April, 1910. For full information address

Sanitarium,

Battle Creek, Mich.

unnatural and is not needed in the body; so it becomes an obstruction and requires an extra effort on the part of the body for its elimination.

Q. Should a person suffering from hyperacidity drink freely of water? If so, should it be hot or cold?

A. Half a glassful of hot water half an hour before meals is a good plan. Two or three hours after meals, when the acidity is the highest, it is a good thing to take one or two glassfuls of hot water as a means of washing out the stomach and relaxing the pylorus.

Q. What is the quantity of hydrochloric acid normally in the human stomach?

A. About two parts in a thousand of the gastric fluid.

Q. Does "appetite juice" have any bad effects upon the stomach?

A. Yes, that is perhaps why one who is suffering from hyperpepsia has an irritation of the stomach. The stomach makes too much appetite juice. That is one reason for it. Such persons ought to avoid strongly flavored foods. One who has hyperacidity should use bland foods which will not produce an excess of appetite juice. On the other hand, if you have too little gastric juice, you should take pains to eat foods that are flavored and will excite the flow of saliva and produce a large quantity of appetite juice.

Q. Does holding liquid in the mouth excite the flow of saliva?

A. No, not if it is sapid liquid. If it is acid or sweet liquid, it does, but not water or tasteless liquid.

Q. What causes the greater flow of saliva, moist food or dry food?

A. Very dry food. Dry powder produces more saliva than anything else.

Q. What does arsenic do for the nerves?

A. It does not do any permanent good. It makes you think you are better when you are not better.

Q. Would you advise two or three meals a day for a severe case of anemia?

A. It depends entirely on how much food you take and what kind of food you take. Three meals are all right if you eat food which is quickly digested.

Q. At what hours would you suggest meals should be taken when one eats but two meals a day?

A. If I had my way about it, I would eat breakfast about ten o'clock in the morning, and dinner somewhere about four or five o'clock in the afternoon. One can best do certain kinds of work in the morning. If engaged in mental work, business, or anything one has to do with the brain, it is best done before one eats anything. Perhaps one may take a little fruit on rising, such as an apple or pear; then two or three hours afterward have breakfast.

ARRIVALS

THE list of arrivals at the Battle Creek Sanitarium for the week ending March 6 is as follows: Mrs. C. K. Parmelee, Chicago; Lee B. Humphrey, Pa.; Dr. H. A. Miller, Mich.; J. H. Jackson and wife, S. Dak.; Mrs. M. B. Webber, Minn.; Wallace B. Smith, Texas; Helen H. Barlag, Cleveland; J. A. McGowan, Mont.; A. E. Gawny, Manitoba; Juliette Sessions, O.; Mrs. G. R. Schinmill, Detroit; Mrs. Stafford Burgis, Mich.; Mrs. J. C. Tomlinson, Ia.; A. E. Kenaston, Mich.; J. W. Perry and wife, S. C.; Jesse F. Vermillion and wife, Ind.; Clara Louise Strong, N. Y.; T. P. Otis, N. Y.; S. R. Byron, Pa.; Wm. Everett, Mich.; D. C. Rengh, Mich.; Wm. L. Belt, Washington, D. C.; Miss Katherine Richards and G. P. Wirt, City; R. F. Tompkins, Wis.; M. H. Ballon, Wis.; Jas. C. Wood, Cleveland; A. G. Malter, Pittsburg; Amos S. Bromberg, Calif.; W. F. Haine, Minneapolis; C. J. Chapman, Syracuse; Mr. and Mrs. Francis Kreduff, Ill.; A. Kribling, O.; Mrs. John Kloos, O.; Sherred W. Adams and Elizabeth W. Adams, W. Va.; Catherine McKenzie, Ontario; Florence A. Pray, Mich.; R. L. Thornton, Chicago; J. B. Littman and E. J. Littman, O.; J. S. Yates and wife, Clyde Yates, and Mrs. Carry Yates, Miss.; Thos. Ross, Wash.; H. D. Arnold, M. D., Boston; Mr. and Mrs. C. D. Montrose, Detroit; J. A. de Grayter, W. Va.; Julia Allen, City; Mrs. Hugh Cutter, Mass.; Miss Alberta Angell, Mo.; Miss Eveline McSweeney, O.; Mrs. Jackson Robertson, Chicago; Mrs. T. B. Hough and Mrs. J. R. Bursek, Ill.; John D. Hamilton, Pa.; A. W. Hannah and son, E. F. Gorton and Wm. A. Brown, Chicago; J. C. Lyons, Chicago; Chas. J. Harrison, Mrs. C. J. Harrison, Pa.; John Fletcher, R. I.; W. J. Palms, La.; J. A. Ockerson and Mrs. Ockerson, St. Louis; G. C. Lloyd, Mich.; Wm. Shea, Ia.; L. E. Lackland, Ill.; Mrs. Walter Brown, Ind.; Mrs. R. C. Brabb, Detroit; Mrs. I. W. Emery, Pa.; Thos. M. Leicking, Detroit; H. J. Hanson and R. W. Hanson, Chicago; Mr. and Mrs. N. J. Hall, W. Va.; R. H. Campbell, Canada; Howard Douglas, Canada; Elizabeth Berthold, Ill.; Mrs. W. D. Jones and son, O.; Strackan Johnston, Toronto; Mrs. Chas. C. Thacher, Mich.; A. B. Kenney and wife, Minn.; J. E. Herrity,

M. D., New York City; S. Burgis, Mich.; L. L. Dodge, Minneapolis; Mrs. C. P. Miller, Chicago; Mr. and Mrs. A. Surge, Jr., Mich.; Dr. E. J. Witt, Mich.; Rev. M. A. Munson, Conn.; S. L. Munson, N. Y.; L. F. Mahar, Mich.; Thos. I. L. Hall and Mrs. Hall, Fla.; Harper H. Coates, Tokyo; H. H. Anawalt, Pa.; Harriet E. Bristol, Rochester; Mrs. R. S. Weir and W. L. Weir, Toronto; L. Kearney and Mrs. L. Kearney, Mich.; W. S. Edward, Mich.; Robert W. Timms, Chicago; Mrs. U. L. Curtis, Wis.; J. E. Bartlett and child, Mich.; H. T. Meyers, Chicago; H. H. Hannon, N. Y.; W. H. Taylor, New York City; J. M. Strong, Cleveland; H. Erifenkalb, Toledo; F. S. Terry and Master Albert Terry, New York City; R. B. Huntre, Cleveland; W. N. Stockton, Conn.; E. T. Meredith and Violet Meredith, Ia.; H. F. Drosch, Ill.; E. E. Covert, City; Mrs. Chas. Anderson, Ill.; Mrs. L. L. Williams, Mo.; C. C. Cole, Ky.; G. W. Abbott and wife, S. Dak.; F. Wolf, City; Dr. Laura T. Myers, Boston; J. H. McLane, Chicago; J. J. Mucher, Kansas; L. E. Spring, Okla.; C. A. Steck, Ill.; Mrs. E. J. Barker, Tenn.

News and Personals

Mr. John Fletcher, of the Melrose Sanitarium, is spending a short time at the Battle Creek Sanitarium.

Miss Asenath Radley, one of the Sanitarium nurses, went to St. Petersburg, Fla., on the 4th inst., to care for Mrs. W. K. Kellogg, who is spending the winter there.

Just a Word To Our Patrons

The Sanitarium has a first class washery and your clothes will receive special care at reasonable prices.

Phone Office for boy, or

SANITARIUM LAUNDRY

TWO COURSES IN DOMESTIC SCIENCE

The One-Year Course, intended especially for Matrons and Housekeepers or for those who desire it for its educational value, includes General Cookery, Invalid Cookery Institutional Cookery and Practice Cookery, Anatomy and Physiology, Household Chemistry, Home Nursing, Household Microscopy, Household Microscopy, Household Economics and Architecture, Sewing, Medical Dietetics, Theory, Table Service, Physical Culture, etc.

The Two-Year or professional course, intended especially for Dietitians, Lecturers, and Demonstrators, includes all the studies of the one-year course, and in addition Advanced Chemistry, Advanced Physiology, Sanitary Science, Bacteriology, and Hygiene, and Advanced English.

ONE SPECIAL FEATURE of this school is that students are given an opportunity to meet a large part of their expenses by work along lines which aid them in their studies.

**The Battle Creek Sanitarium School
of Health and Household Economics**

**BATTLE CREEK
MICHIGAN**

Original from

The medical students spent a very pleasant social evening together in Hall Cottage on March 5. An interesting program had been prepared by the students, which was enjoyed by all in attendance.

Among the doctors who are stopping at the Sanitarium we note the following: Dr. Laura T. Myers, Boston; J. E. Herrity, M. D., New York City; Dr. E. J. Witt, St. Joseph, Mich.; H. D. Arnold, M. D., Boston.

Among those who have returned to the Sanitarium recently we note Mr. N. J. Jefferson, of St. Paul; Mr. W. F. Harris, of Minneapolis; Col. C. E. Carr, of Galesburg, Ill. These gentlemen are each prominent in the business circles of their communities, and their cheerful presence is felt in the Sanitarium family.

A rare treat awaits the Sanitarium family for next Tuesday evening, at which time Prof. W. G. Coburn, superintendent of the public schools, will deliver his beautifully illustrated lecture on the Yellowstone. The lecture will be free, and no doubt there will be a good attendance. Let all bear it in mind.

Miss Mamie Youngberg, a favorite member of the Sanitarium nursing family and a graduate of our training school, returned to her home in Brookings, South Dakota, last week to spend a few months with her par-

ents, she having been separated from them almost continuously for over four years. We all shall miss her.

Large numbers of interesting letters are being received from the delegates to the recent Medical Missionary Conference, one and all expressing their enjoyment of the Conference and of the hospitality shown by the Sanitarium management. Many of them allude to the unique opportunity afforded them here of meeting fellow-workers from all parts of the world.

The Sanitarium pulpit on last Sabbath was occupied by Elder Alonzo T. Jones, who spoke on the subject of "Christian Unity." In the afternoon Miss Agnes E. Baskerville, of South India, spoke on "The Womanhood and Girlhood of India" in a very instructive and interesting manner. Miss Baskerville is a teacher in a large girls' school and is conversant with the subject which she treated.

Rev. Harper H. Coates, D. D., of Canada, gave a most interesting talk at the Missionary Rally held in East Hall parlor on the afternoon of the 6th inst. He told of many interesting experiences in Japan during his twenty years' service there. He also alluded to his return trip on the same steamer with the Francis E. Clark Christian Endeavor party, who were returning from their convention in India.

The Sanitarium was visited last Monday by two gentlemen connected with the government service, who called in a social capacity

to inspect the institution. They were O. R. Sudler, Ph.D., M.D., United States Food and Drug Inspector, of the Agricultural Department, and Mr. Moore, formerly of the agricultural department of North Dakota, now of Washington. Their visit was a very pleasant one and the impression they received seemed to be pleasing to themselves.

The Sanitarium orchestra, under the leadership of Mr. Drever, and assisted by a ladies' quartette, gave a concert of extraordinary merit and interest on the evening of the 8th inst. in the Sanitarium gymnasium. The orchestra consisted of thirteen pieces, and the program was very carefully arranged and rendered in an exquisite manner, giving great delight to the large audience in attendance. A neat sum was realized for the benefit of the library and the orchestra.

The Sanitarium Helpers' family were very much shocked on the morning of the 7th to learn that during the night one of their number had been suddenly called away by death. Mr. P. F. Archibald, of the nursing staff, was apparently in the best of health, and after others had retired sat writing a letter, when suddenly in the midst of a word his pen flew across the page and in the morning he was found sitting in his chair dead. Mr. Archibald was an earnest and very consistent Christian young man, most highly esteemed by his associates and by all who knew him. His death is very keenly felt by the workers in the Sanitarium who knew and loved him. Memorial services were held in the chapel on the afternoon of the 8th.

Battle Creek Sanitarium School of Physical Education

A GREAT OPPORTUNITY FOR YOUNG MEN AND WOMEN. Expenses may be largely paid in work. Gymnastics—German and Swedish; Dietetics; Massage; Hydrotherapy; What to do in Accidents, Emergencies and Common Maladies; Medical Gymnastics. Anatomy and Physiology; Chemical and Anatomical Laboratory work; Large Indoor and Outdoor Gymnasium and Swimming Pools.



Large Faculty of able teachers and trainers. Course one year. Tuition full year, \$85.00; Board and Room, \$3.00 to \$3.50. A number of students may pay their way in work.

Mr. Horace Fletcher will give a course of lectures on vital economics, and Mr. John F. Stapleton, formerly of the Yale Gymnasium, a special course on theory and practice of Swedish gymnastics.

The next regular term (new class beginning) opens March 28, 1910.

Any who are interested will be sent illustrated announcement with further details on request. Address:

The Battle Creek Sanitarium School of Physical Education
BATTLE CREEK, - - - MICHIGAN

THE BATTLE CREEK IDEA

Vol. III No. 15

BATTLE CREEK, MICH., MARCH 18, 1910

Price 2 Cents



DISEASES OF THE NERVOUS SYSTEM

Doctor Riley Tells His Audience of
the Nature and Origin of
Nervous Disorders

We will spend the time to-night considering the causes of the diseases of the nervous system. First of all, I wish to remark that

The Sanitarium is Homelike

How the Guests and Patients of the Sanitarium are Defended against the
Inroads of Homesickness

In contemplating a trip away from home, especially if the absence is to be among strangers, one seriously hesitates to inquire

THE BLOOD PRESSURE AND ARTERIOSCLEROSIS

Doctor Kellogg Tells, in a Lecture in the
Sanitarium Parlor, the Cause of
Premature Old Age

THE matter of hardening of the arteries and the elevation of the blood-pressure is one which has been of interest to the medi-



SANITARIUM GREENHOUSES

many people have an incorrect idea of what is included in diseases of the nervous system. The idea prevails that if one is nervous, restless, and disturbed more or less mentally, these symptoms constitute diseases of the nervous system. That is by no means the case. There are many diseases of the nervous system in which the individual is not "nervous," as the term is generally used. A man may be paralyzed in some part of his body and yet may not be in any way nervous from that particular thing, or nervous about anything; and yet he has a serious disease of the nervous system. And we might illus-

(Continued on page five)

as to how the time is to be spent. There naturally exists in the mind of every individual an objection to breaking off even for a short time the endearments of home with its comforts, its duties, and its associations, and the contemplation of life for a few weeks in new surroundings is looked upon with uneasiness and suspicion, especially if there is something of the hospital associated with the idea of the new situation.

Everybody pities sick people, but nobody chooses invalids for companions unless it may be out of sympathy for them or a desire to help them, and there is not the least

(Continued on page three)

cal profession for at least two centuries, but it has not been understood until within the last ten years. In fact, every year some new and very important information is being developed which throws light upon this very important subject.

This question is closely allied to that of longevity. An eminent French physiologist remarked many years ago, "Man is as old as his arteries," which means that when a man's arteries are old, when they have become diseased, the man himself is old, no matter what the number of years he has lived, because the arteries are the source of life, the channels of life to the body. This is the state-

ment of Holy Writ, that the blood is the life, or, as Moses said, "The life is in the blood."

John Hunter, the great English anatomist, many years ago made a very interesting experiment. Many things were not known at that time that are now matters of such commonplace information that we do not really appreciate how novel and how interesting they were when the facts were first elicited. He made this experiment: He cut all the nerves going to the limb of a dog. The leg was paralyzed, but it lived. The limb was warm; its blood supply was not interfered with; its nutrition was all right, and the dog suffered no pain in the limb; he could not use the limb, but it was alive and warm. He then made another experiment. He cut all the arteries, tied all the arteries going into the limb and left the nerves alone. The leg retained its sensibility for a time, but it soon died and sloughed off. So he showed that the arteries are absolutely essential, that the blood is absolutely essential to life. The statement made by Moses, "The blood is the life," was thus proved by this great anatomist to be true.

The blood passing through these channels irrigates the tissues as well as supplying nutriment to all the individual cells, the muscles, brain, nerves, and every other part; and just the moment the blood supply is cut off, that moment the part begins to die. To make that plainer, suppose we take a very simple illustration. Here is a baby that has whooping-cough. It coughs, and coughs, and coughs, so that one would think it is never going to get its breath again; it gets black in the face, and you think the baby is going to die. Just then the little one takes a long breath, and soon it has recovered. But when the baby is black in its face, it means it is pretty nearly dead, for, as is the case when a person is overcome in a burning building, the face becomes cyanotic, and you say the person is dead, so the baby with whooping-cough is cyanotic also, because the supply of oxygen has been temporarily shut off.

Now, what happens to the individual when the supply of air is shut off and the blood can not circulate properly, happens to every part of the body. So imagine, if you please, a cell away down in the tip of the finger that needs blood, needs air. The blood is the means by which the nutriment and the air are carried to the part. The air supply is shut off, and what becomes of it? Just try to imagine that little cell black in the face, getting cyanotic, getting blue, which it will do in a little while unless it gets a supply of blood, unless it gets a supply of air, unless the poisons that are formed are carried off.

WE NEED AIR

That is what is happening all the while in our bodies—poisons are accumulating, and the need for air is a want which is constant and pressing; and the circulation of the blood, the free movement of blood throughout the entire body, is the means by which the poisons are carried away and the cells are supplied with air. The whole body, then, depends for its life, and for its maintenance, upon the free circulation of the blood.

The hardening of the arteries is not simply a hardening of the walls of the artery.

That would not do such a great amount of harm—it would do some harm, but it would not be a fatal evil if it were not for the fact that something else happens besides simple hardening. There is a thickening of the walls—that is the important thing. As the walls are thickened, the thickening goes on inside. Now, suppose here is a water pipe which keeps getting thicker and thicker by accumulations inside; it will gradually close up. Suppose, for instance, we have a water pipe two inches in diameter, and there is an accumulation half an inch thick all the way around, inside of the pipe, the opening in that pipe would be reduced to one inch. What would happen to a one-inch pipe at the same time? If there were a half-inch accumulation all around the inside of a one-inch pipe, it would be no longer a pipe. It would be closed up completely.

This is the thing that happens with this hardening of the arteries, or arteriosclerosis. All the arteries have their walls thickened by the accumulation upon the inside. They do not swell out and become larger, and it is not really an incrustation, but it is a thickening of the wall on the inside. The inner layer is thickened so the caliber of the artery, the lumen, becomes greatly diminished, and in the small arteries stopped up entirely, so that the blood supply of the parts is shut off.

DYING OF OLD AGE

Now, this is what happens in time to every person who lives long enough. If a man lives long enough, his arteries will by and by harden and shrivel, and that is why he dies. That is, death by old age is simply a shriveling up of the arteries, a hardening of the arteries, cutting off the blood supply so that the tissues become depreciated. The old man is not as tall as he was when he was young. He may be an inch shorter, or even as much as two inches shorter. Have you not seen men whom you knew years ago, who are now old, and they are not as tall as they were formerly? Take a person who is perhaps six feet tall, in the height of his vigor, and that man may not measure more than five feet nine or ten inches when he gets to be eighty years of age.

When a person becomes bowed with the weight of years, the bending forward lessens the height somewhat. But he gets shorter principally by the shrinking of the tissues. There are little cushions between the vertebrae of the spinal column which are piled one upon another. These cushions become thinner, and in consequence the whole vertebral column shortens, so the whole man becomes shorter. What is true of the spinal column is true of all other parts of the body. It is true of the liver; it is true of the kidneys; it is true of the lungs; it is true of the heart. These organs all become smaller, and the muscles shrink away. This shrinking of the tissues is characteristic of old age. The skin shrivels; its tissues are depreciated so that its contractile power is diminished or lost, and it has a relaxed appearance because its tissues are depreciated. The muscles of the face show a relaxed condition because of this weakening of the tissues; and so it goes on throughout the entire body.

In Stockholm there is a very interesting

museum, and in this museum there are some wonderful things not found in any other museum in the world. One of the things there is a collection of anatomical specimens of human tissues and organs preserved in a marvelous way so that they look exactly as though they were alive. Among other things is a collection of human eyes. There is a baby's eye, which looks as though the depths were ever so great. It may be always noticed that the eye of an infant is so dark that looking into it is like looking into deep water. This is because the tissues of the baby's eyes are so clear, the lenses, the media of the eye are so absolutely clear and pellucid; there is nothing there at all to the least degree to diminish or depreciate the transparency of the eye. In the same collection I saw the eye of a boy ten years old, and one sixteen years old, and the eye of a person twenty-five years, and the eye of thirty—this was not anything like as deep; it was not as clear or as transparent. By and by, coming to the eye of forty, one notices that it begins to show decided opacity; and the eye of eighty, and the eye of ninety are almost opaque. Why is it? It is because of the deposit of tissue debris, of impurities that are deposited in the tissues; the tissues are losing their transparency.

In perfect life, in the young child, with its primitive life when it is still in its pristine purity, there is no debris there; the tissues are transparent; but as we grow older, impurities accumulate,—organic filth and dirt accumulate in the body. So we lose this transparency, and with the transparency we lose vitality. By and by the time comes when the transparency has gone, when the vitality is reduced to such a degree that old Father Time is invited to come and reap his harvest. So when you see a person with a clear, bright skin, and a clear, bright eye, there is significance in that fact. It means a high tide of life, other things being equal; and when you see a person with a tawny skin, with lustreless eyes, that is a very significant thing. It means organic dirt, filth accumulating and poisons stored up in the body; and that means death is being invited every day.

Now, this same deposit of impurities which, as age advances, occurs throughout the whole body, is especially great in the blood-vessels. The blood is the means by which the impurities are carried out; and as the blood becomes more and more saturated with these impurities, the blood-vessels, which are adjacent to the blood, and nourished from the blood, receive the greatest deposit of these impurities, and the greatest damage from them. When we find disease coming into the blood-vessels, that means disease in every part of the body. There can not be diseased blood-vessels without every organ of the body being diseased. The following statement is made upon good scientific authority: If everything else in the body were removed except the blood-vessels, the body would still be complete in form, so multitudinous are the blood-vessels and so intricate is their arrangement over the whole body. On this account we can not have diseased blood-vessels without having every other part affected.

Hardened arteries mean heart disease, and

a hardened liver, and hardened kidneys, and a hardened brain. It means that every organ of the body is affected by this hardening process. Although this condition may not be recognizable by the touch, the process has begun and is going on. When this process of hardening of the arteries becomes fully established it is like the laws of the Medes and Persians—there is no changing it; the thing is done, and it can not be undone. The disease can be modified somewhat; the process may be arrested, but for this condition there is no absolute cure.

The art of living long is one which is coveted by all mankind. Every man desires to enjoy long life and to receive the benediction of a ripe old age. The question of how to stem this oncoming tide of premature decay is a vital one. The secret may be found in the prevention of the deposit in the blood stream of organic debris, by the adoption of a pure and natural dietary and a proper and hygienic mode of living.

THE SANITARIUM IS HOMELIKE

(Continued from page one)

doubt that many who contemplate a visit to the Battle Creek Sanitarium stand for a longer or short time hesitating and dreading to come because of some forebodings as to what the associations may be, and as to what the life may consist of. Visions of people in various stages of illness and other scenes reminding one of suffering present themselves to the mind of one who has never visited such a place.

Now, we desire to place before our readers at this time a brief, but true picture of the social life at the Battle Creek Sanitarium, with the hope of dispelling any misgivings that those who feel the need of the help to be obtained here, may be entertaining in regard to our social life. In the first place, let it be understood that the method adopted by the Sanitarium managers is calculated to make Sanitarium life as homelike as possible. The physicians realize that homesickness is a formidable obstacle to progress and success in any condition in life, and when associated with other forms of disease it becomes inimical to recovery. Every means, therefore, must be taken to prevent the longings for home.

Those who come to the Sanitarium should come fully determined to leave home cares behind as far as possible. Satisfactory arrangements should be made for the care of home interests, so that they can be confidently left behind. The children should be well provided for, and competent persons left in charge of all work and business, so that the individual coming here for treatment may be untrammelled and free from the ordinary cares of life or anxieties in regard to affairs at home. Letters from home should be frequent and cheerful, and of an assuring nature.

Upon arriving at the Battle Creek station the stranger will be met by a kind and courteous porter from the institution, who will tenderly care for both passenger and baggage and see that they are carefully and comfortably conveyed to the institution. Arr-

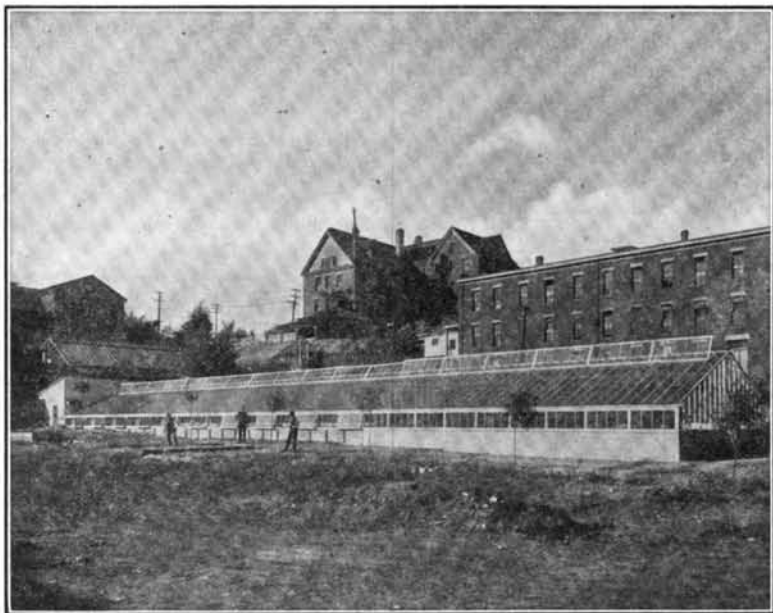
iving at the entrance, one will find himself face to face with a very large building, six stories high and nearly six hundred feet in length, of chaste and massive appearance, impressive for its evident strength and security. As he passes inside he is met by the doorkeeper, who assists in registration, and the rooming clerk at once places all information before the guest as to terms and available accommodations, providing these have not been previously arranged for.

In looking around him, especially as he visits the spacious and beautiful dining-room in the upper story of the building, and looks out of the windows upon the cheerful prospects spreading out for miles in every direction, there is a sense of homeliness that is very comforting, and he begins at once to look around for appearances of invalidism, and is surprised to meet a large company of cheerful faces, and to observe the evidence of good appetites. He listens to the cheerful conversations and at once takes heart, expressing to himself and perhaps to others his astonishment at seeing so few who mani-

ments. Strangeness very quickly passes away and a home-like feeling is exerted over the life which is at once comforting and assuring.

If one is inclined to attend religious services, they are frequently accessible. Opportunities for sociability are always present, and lectures and various entertainments fill up the vacant hours and evenings, so that when bedtime is reached, at 9 o'clock, the patient has a comforting sense of weariness which leads him to choose to retire early to sound and refreshing sleep. The attendants of all classes are taught to be courteous and sympathetic. Indeed, they are selected with that thought in view, and any one who is inclined to be otherwise is soon disposed of.

Notwithstanding the endearments of home and the ties which naturally draw one thither as soon as conditions will make it expedient, it is almost universally the case that those departing from the Sanitarium do so with many regrets at the breaking off of pleasant associations and with a memory full of the pleasantest reminiscences, and



OUTSIDE VIEW OF SANITARIUM GREENHOUSE

fest any of the signs of illness. His neighbors at the table quickly introduce themselves, and he is led to do the same, and is at once at home. Places at the table are reserved and many and permanent friendships are thus formed, some of which are lasting through the rest of life.

Visiting the lobby or the libraries or parlors, the stranger is met by people who are also away from home and looking for friendly associates. There are no dolorous stories told; there is no grumbling or complaining heard; there is no scolding or fault-finding; everything moves on pleasantly. A program of activities begins at 7 o'clock in the morning, carrying the individual's attention pleasantly through the day.

After a short visit to the medical office, where a cursory examination is jotted down by the receiving physician, the patient is assigned to his doctor, and is, as soon as possible, initiated into the routine of his treat-

above all with a happy sense of the benefits that have been received.

A letter from Dr. Florence Holt, private secretary to Dr. J. H. Kellogg, who went to Colorado recently in company with Miss Rouzee, Y. W. C. A. secretary, reports that they have reached their new rural home and are comfortably settled down, eight miles from the nearest post-office, and within sight of Pikes Peak. They have a horse and buggy, by which they have access to the outer world. Doctor Holt states that they are already receiving marked benefit from the genial climate and pure air of the Western plains. After recuperating, Dr. Holt anticipates taking some medical work preparatory to a foreign field, and then purposes going to China as a medical missionary. It was with this purpose in view that she took her medical course.

The Battle Creek Idea

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VOL. III MARCH 18, 1910 No. 15

BEAR YE ONE ANOTHER'S BURDENS

THE above injunction is said to embody the law of Christ. It was the rule of his life, the animating desire of his activities, to bear upon his own shoulders the loads that were oppressing others. The law of Christ is self-denial for the good of others. The law of human nature is self-indulgence at the expense of others. Love and selfishness are the two great root principles from which human actions spring; and all that is said or done may be attributed to one or the other of these sources.

From selfishness springs all oppression and deceit. The evils which curse society are the results of the gratification of selfish principles. Providence has arranged the affairs of this world so that its natural resources are abundant for the supply of every want of every individual living. If the gifts of nature were equitably distributed there would be no poverty nor pinching want. The earth produces food enough to feed every person on the globe year by year. And one of the great responsibilities placed upon us all by the law of Christ is to assist each of our fellow creatures in securing that which belongs to him. If human society were only worked upon this principle, it would indeed be a happy world. This is our supreme duty and privilege—to help others to get that which God designed they should have of the blessings of his hands.

But certain people selfishly grasp after the supplies and gather far beyond their needs, while others are deprived of that which was designed for them. And selfish shiftlessness deprives many people of the good that is within their reach, had they the disposition and sense to obtain it.

False ideas of life spoil the portion of many people. There is a hankering for unnatural conditions, for that which is purely artificial and non-essential. The sight of the wantonness of some rich people fills the minds and lives of the other classes with discontent and jealousy. False ideas of what constitutes the basis of true happiness is responsible for much of the misery of the world.

The concentration of multitudes in the cities and the abandonment of rural life brings untold distress upon people who flock hither and thither like sheep following each other in a senseless and thoughtless rush.

It is often remarked that "Man made the city, but God made the country"; and this is true enough for a practical lesson in teaching the great truth that those who live in the country live nearest the great source of divine bounty. The farmer is the first man to the feed-box, and is the most independent of any class, because he has within his reach the means of supplying nearly all of his own wants.

How many thousands there are who are struggling along in crowded quarters, living lives of continual want and deprivation, who might be comparatively bappy and well fed out in the freer conditions of the country.

Selfish greed will doubtless continue to oppress the poor, and the grasp of the oppressor may become tighter as the years come. The evident remedy is to place one's self as far as possible outside of the power of the world's greed, and as near as possible to the great Provider who causes the sun to shine and the rain to fall without cost, and from the storehouse of his bounty brings out those things that are really necessary for the good of his children.

A CHRISTMAS TREE IN THE STOCK YARDS DISTRICT

It is surely late in the season to talk about Christmas trees, but we owe an apology to the writer and our readers for overlooking a very pleasing account of last Christmas as it was celebrated at the American Medical Missionary College Dispensary in the Chicago Stock Yards district, and having made our apology, we beg to present the account now:

"We are wondering if any one has any more pleasant memories of Christmas in 1909 than have those who were privileged to be present and to assist in preparing the Christmas tree for the children of the district surrounding the A. M. M. C. Dispensary in Chicago. Some weeks before Christmas, the expression, 'I wish I could be home for Christmas,' was quite popular and the prospects before those who were obliged to remain at the dispensary did not appear the most pleasant. But it was decided to throw away useless repinings and to make some effort for the children around us who would not have any of the joys of Christmas unless someone provided them especially.

"There were about eighty members enrolled in the Dispensary Sunday School, and on each afternoon for two weeks before Christmas the nurses off duty would go out soliciting for presents. The work was quite new to all engaged, and we started in with reluctant steps, each one trying to hide behind the other; but as we found the people kind and disposed to respond generously, our courage arose and soon each one was trying to do

more than the other. The evenings were spent in sorting and marking presents, and in a short time the results were surprising even to those who were doing the work. Our thanks are certainly due to the business men of this section for their generosity, and also to some who sent us help from a distance.

"A week before Christmas we had enough goodies to fill one hundred stockings and a substantial gift for each Sunday School pupil. Besides these, there were almost a hundred extra toys for other children who might come in. The long looked-for day finally arrived and the tree was ready, beautiful with its adornments. Long before the hour set, the children were gathered about the doors, clamoring for admittance. A very short program of songs and recitations was rendered, for we could not keep the children waiting long with such a shining prospect in view. Doctor Haskell told the children why we celebrate Christmas. Santa Claus and his associates were now ready and the members of the Sunday School were first remembered, though by good management every one of the almost two hundred children present received something to take home with them. While the presents were not costly, all had done their best and felt well repaid for the effort while witnessing the pleasure brought to the little hearts by showing them that some one cared for them."

LIFE'S LETTERS

LAST week we mentioned the untimely death of Mr. Purley F. Archibald, one of the Sanitarium nurses, held in very high esteem by his associates. He was engaged in writing a letter to a friend when the end came suddenly without warning. One of his associates, Mr. Arthur E. Bates, has written the following lines appropriate to the circumstance and handed them in for publication:

All our lives are living letters,
And so oft unfinished here,
For on time's fair tinted paper
Each short sentence means a year;
For each word is but some sorrow,
And each comma but a tear,
With the periods represented
By the birthdays we spend here.

And bow often in the middle
Of some ill conceived line
We, like worthless pens, are lifted
By the hand of the Divine.
And our writing on time's paper
Stops at once for evermore,—
Stops that we may read and ponder
What our hand has writ before.

And how happy if our writing,
When we happen to be called,
Is as pure and rich in virtue
As that penned by ARCHIBALD.

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DISEASES OF NERVOUS SYSTEM

(Continued from page one)

trate this with a great many other diseases. Hence, the idea that restlessness or nervous disturbances are the principal things the physician has to deal with when he devotes his time to relieving diseases of the nervous system is entirely wrong; because we have a large number of diseases of the nervous system in which the element of mental disturbance or general nervousness is not present at all.

In a very well written text-book by my old teacher, he describes one hundred and seventy-three different diseases of the nervous system. There are many reasons why so many different nervous disorders exist, and one is that the function of the nervous system and the brain is very different from that of any other organ in the body. For one part of the brain has control of motion; another part has control of sensation; another part has to do with vision, and still another part with hearing; and so we might go on and enumerate a large number of different functions of the brain and nervous system, certain parts being designed to perform certain functions, and other parts being devoted to entirely different uses.

It is on account of this variety of functions that we have so many different manifestations of diseases of the nervous system. For instance, there is a center in the brain that has control of the function of speech, and as we learn to speak we store up in our brain what we call word memories; we memorize words, or rather we memorize the effort necessary to speak certain words, and that particular memory is stored up in a certain part of the brain which is called the center of speech. It is located on the left side of the brain in front in people who are right-handed, and on the opposite side of the brain in people who are left-handed. This particular center may become diseased, and then the man can not think of the word that he wants to speak. He may know the name of the object, like a chair, or a house, or other familiar terms, and know it just as well as he ever did, and yet he can not say the word to express the object.

Take, for instance, the spinal cord, which is about as large as one's little finger and is located in the spinal column. There are a large number of nerve tracts which extend up and down in this spinal cord. Some of these nerve bundles extend up to the surface of the brain; and if a certain bundle of nerves becomes diseased, the person is paralyzed in his leg; or another being diseased paralyzes an arm. It may be a very small bundle that is affected, and yet that may be sufficient to cause a complete paralysis in the leg, or arm, or both.

Then, again, if a posterior portion of the spinal cord be diseased, the man has what we call *locomotor ataxia*, or *tubes dorsalis*. A very small bundle of fibers undergoes degeneration, and the man as he walks along the street throws his feet out, broadens his base, strikes the floor first with his heels, keeps his eyes fixed upon the ground to aid his walking, and he often has sharp, shooting pains in his legs and frequently numbness in his feet;

and very often when he walks upon the ground, he has a sensation as though he were walking on a carpet; and many other symptoms which I will not stop to enumerate.

LOCOMOTOR ATAXIA IS NOT PARALYSIS

by any means. In locomotor ataxia, at the beginning of the disease at least, the man can make his muscles contract just as vigorously as he ever did, yet can not control his muscles. His co-ordination is disturbed; he can not make his muscles contract in just the right order so as to walk properly. The word "ataxia" means disorder; and locomotor ataxia means disorder in locomotion, or in walking. The function of co-ordination is very important in securing and controlling motion, and it is highly developed in many manual arts, such as playing a musical instrument; the muscles must move in just the right way, at just the right time, in order to bring out the right tones on the instruments. We use this function of co-ordination to a greater or less extent in every movement that we perform; and when this little posterior part of the spinal column is diseased, the impulses which come from the muscles can not reach the brain; so the brain does not have the knowledge that it should have of the action of the muscles, and it does not know what kind of impulses to send out to these muscles; and the lack of proper knowledge coming in from the muscles to the brain to tell the brain just how the muscles are acting is what causes the disorder or the ataxia.

Muscular activity depends upon at least two kinds of impulses—those that pass from the muscles to the brain, telling the brain how the muscles are working; and, second, those that pass from the brain to the muscles to make the muscles contract. This also illustrates how a comparatively small portion

of the nervous system being affected may produce a definite group of symptoms that we call a disease; and if another portion of the nervous system is affected, we have a different group of symptoms. So it becomes the duty of the physician dealing with diseases of the nervous system, not only to tell the kind of disease, but to localize it, to decide whether it is in the brain, and if it is in the brain, in what part of the brain; if it is in the spinal cord, in what part of the spinal cord; and not only tell where it is, but to tell the probable outcome of the difficulty. All of these questions are involved in a proper consideration of and dealing with the diseases of the nervous system.

Probably our modern civilization, complicated as it is with difficulties in social and commercial life, has very much to do with a large number of the diseases that we see at the present time.

CAUSES

We may divide the causes of diseases of the nervous system into two great groups, one of which we may call the predisposing causes, those that prepare the way for the disease; and the other the exciting causes. Among the predisposing causes we have the following: Heredity, Race, Sex, and Age. We might add to these, but they are the most important. Let us notice each of these.

First, Heredity. This term is often used without a very definite idea of what it means. Heredity consists of certain conditions that are transmitted from parents to offspring on account of some peculiarity of the original cell from which life springs.

Every individual begins his life as a single cell. A cell is a unit of tissue. Cells are the units out of which the body is formed; they are to the body what the bricks are to a brick house. There is this difference, how-

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UNIVERSITY OF MICHIGAN

ever—the bricks in the house are all of the same size; they are all of the same shape, or nearly so; but in our bodies the cells are of different sizes, shapes and kinds. We have brain cells and nerve cells; we have liver cells in the liver; we have muscle cells in the muscle; we have bone cells in the bone; and so on. When we begin our life it is as a single cell, a microscopical animal, about 1-250th of an inch in diameter. In this cell are encased all the possibilities of the future life, mental and physical, and everything else.

Now, if this cell is of good quality, if the material of which this cell is composed is good, if the cell has a good degree of vital-

tem. We see it in different forms of insanity, which can be traced back for generations and appears in some forms of insanity to as high as seventy-five to eighty-five per cent of the descendants.

There are quite a number of diseases of the nervous system where the element of heredity is very active, such as migraine or sick headache, epilepsy, hysteria, neurasthenia, particularly primary neurasthenia, or the form of neurasthenia that occurs early in life, and ties. The term ties refers to a peculiar spasmodic action of the muscles.

RACE AS A FACTOR

in nervous diseases is simply a matter of

The negro race, on the other hand, are quite immune to malaria and to yellow fever. I believe the Japanese are quite immune to scarlet fever. This matter of race, however, does not enter as a very important factor into the causes of diseases of the nervous system.

NEXT IS SEX

There is not very much to be said about this. It is noticeable, however, that men are more liable to organic diseases of the nervous system, such as locomotor ataxia, and different forms of paralysis, etc., than women. On the other hand, women are more liable to painful diseases of the nervous system, like neuralgias, and what we call sensory disturbances and functional disorders.

WITH REFERENCE TO AGE,

we may divide the span of life into four great periods: the period of infancy;



WINTER SOLARIUM—SUMMER DINING-ROOM

ity and vigor and health, then the individual that grows from this cell will have the possibilities of being healthy. But if this cell is made up of poor material, if it has a low degree of vitality, if it has little vigor, then the individual who comes from this cell may be affected more or less in consequence; it may simply be a sort of weakness; the person may not have a full measure of vigor and vitality when grown; or the difficulty may go on beyond this. It may show itself in a fully developed disease of the nervous system, or some other part of the body.

If the parents from whom this cell comes are healthy and vigorous, then the child will probably inherit good qualities, and the possibility of living a healthful life. This subject of heredity is certainly a very important one. Evil heredity comes from a violation of nature's laws. Somebody in the past has violated the laws of life.

On the other hand, those who are born of parents and ancestors who have lived right, who have taken proper care of their bodies, have a good inheritance. And that is a great blessing. Heredity is certainly a very active factor in the matter of health. This is particularly true in diseases of the nervous sys-

heredity. The liability or immunity of races to certain diseases depends upon the habits or environments of those who compose them. There are things perhaps which stand out quite prominently in the experience of a race; and as it comes down it may be intensified, and may finally show itself in some peculiar traits. For instance, we find the Hebrew race quite prone to neurasthenia and to diabetes, and the negro race very susceptible to tuberculosis and to general paresis, a disease of the nervous system.

Ideal Scrap File



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Among other special advantages offered are laboratory instruction in bacteriology and chemistry, the use of the microscope, urinary analysis, practical course in cookery and dietetics, medical gymnastics, swimming, anthropometry and open air methods.

Applicants received whenever vacancies. The next class will be organized the first of April, 1910. For full information address

Sanitarium,

Battle Creek, Mich.

News and Personals

Mrs. M. W. Miller, of Granville, O., is a returned patient. She brought with her Mrs. C. L. Williams, of the same place.

Mrs. S. W. Mowers, of Tacoma, Wash., wife of Doctor Mowers, the head surgeon of the Northwestern Hospital, is a patient at the Sanitarium.

Mrs. Nathan Paine, of Oshkosh, Wis., an old friend and patron of the institution, is again with us. She is accompanied by Mrs. D. B. Lewis, of the same city.

Mrs. G. E. Jaynes, a missionary from India under the Presbyterian Board, is among the recent arrivals at the Sanitarium. She is accompanied by her mother, who is here as a patient.

Mrs. Melvina Cutler, wife of Dr. E. R. Cutler, of Bridgewater, Mass., has returned to her home after taking a few weeks' treatment at the Sanitarium.

Dr. Jas. D. Wood, of Cleveland, O., who has been taking rest and treatment in the institution for the past few weeks, has returned to his home. Doctor Wood is a professor in the Homeopathic College of Cleveland.

Miss Mary Hunter spent a few days last week visiting friends at the Sanitarium. Miss Hunter graduated from our Nurses' Training School several years ago and is now employed in the Deaconess Home in Cincinnati.

Miss Anna Christensen, of Belle Fourche, S. Dak., arrived at the Sanitarium last week. She is lately from the Skodsborg, Denmark, Sanitarium and brings news and good cheer from Doctor Ottoson and other friends of that institution.

Mr. and Mrs. W. L. Curtis, of Wisconsin, formerly missionaries in Japan, have been spending several weeks at the Sanitarium, and have taken their departure very much encouraged by the benefits they have received.

Mr. and Mrs. J. H. Dickson, missionaries from the island of Ceylon, Mrs. Harriet M. Shimer, a missionary from Nanking, China, working with the Board of American Friends, and Mrs. Flora N. Chew, also a missionary from China, are stopping at the Sanitarium.

Miss Ruth Leve, who has been connected with the domestic work of the Sanitarium for four years and has gained many friends during her stay here, was recently admitted to the Nurses' Training School and will take up her studies with the new class to be formed April 1. Miss Ederle, of this city, was also admitted to the incoming class.

The medical students of the Sophomore class spent a very pleasant evening in the home of Dr. E. L. Eggleston on the 12th inst. An interesting program was carried out which, with games and light refreshments, served to make the evening a most enjoyable one.

Among the doctors who have recently registered with us, we note the following: Dr. W. C. Cook, Wilkinsburg, Pa.; S. de Nux, M. D., of Louisiana; H. N. Swaney, M. D., Grand Ledge, Mich.

Mr. and Mrs. Geo. H. Orr, of Manistique, Mich., have arrived at the Sanitarium for rest and treatment. They are friends of Mr. and Mrs. Nicholson, of the same city, who are also stopping with us. These people are prominent in business and social circles in the northern city and form a pleasant little social group in our large family.

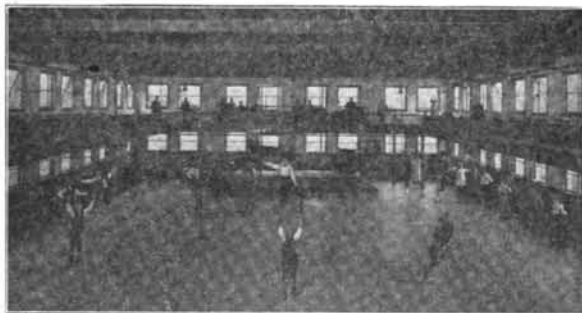
The patronage of the Sanitarium was never so large at this time of the year as at present. There are over one hundred patients more than were here at the same time one year ago. The prospect is that the coming season will far exceed the patronage of any preceding year.

The Ideal Scrap File, advertised in these columns, is a convenient invention for any one who is keeping tab on current events. Each page of the file contains not only the scraps taken from newspapers and other sources for future reference, but each clipping is so placed that its head at once catches the eye.

On the evening of the 15th the Sanitarium family were highly entertained by Prof. W. G. Coburn, superintendent of the public schools, who delivered a very entertaining and instructive lecture on the Yellowstone Park, illustrated by a large number of beautiful views.

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Mr. Horace Fletcher will give a course of lectures on vital economics, and Mr. John F. Stapleton, formerly of the Yale Gymnasium, a special course on theory and practice of Swedish gymnastics.

The next regular term (new class beginning) opens March 28, 1910.

Any who are interested will be sent illustrated announcement with further details on request. Address:

The Battle Creek Sanitarium School of Physical Education
BATTLE CREEK, MICHIGAN

THE BATTLE CREEK IDEA

Vol. III No. 16

BATTLE CREEK, MICH., MARCH 25, 1910

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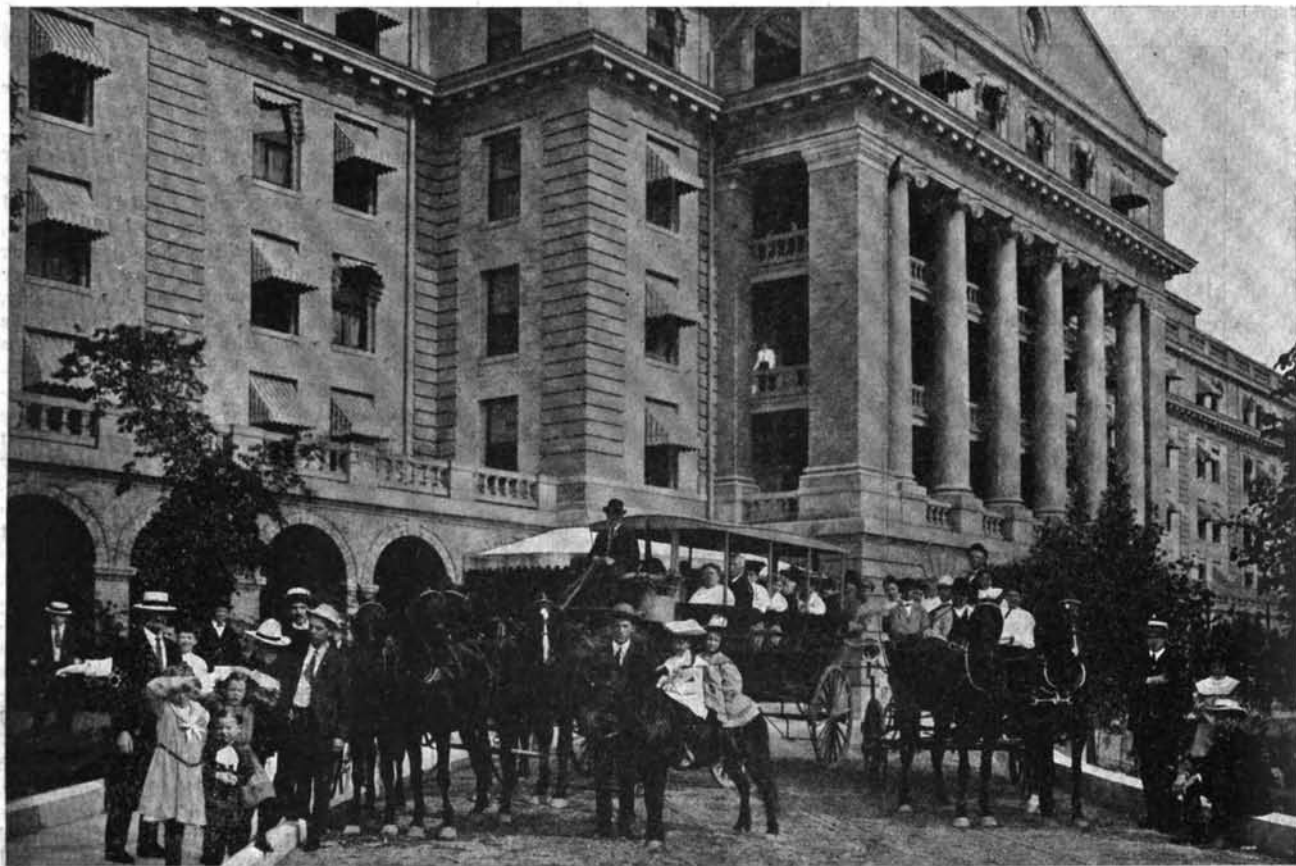
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HOW TO FEED THE INNOCENTS

Substitutes for Natural Infant Food are Discussed in a Parlor Lecture by Dr. J. H. Kellogg

ONE of the most difficult problems, for mothers at least, is to find a good substitute



THE MAIN BUILDING OF THE BATTLE CREEK SANITARIUM—1903

we have what we call mental causes, which operate through the mind, such as fright, worry, anxiety. This class of causes is quite active. A number of diseases, such as neurasthenia, hysteria, and some forms of insanity, are produced by mental shocks and mental strain. Insanity is quite often caused in that way, and I have seen quite a number

(Continued on page five)

hearer. Nothing counts for so much in evidence as actual experience. The things that have been done are the things that really characterize the story. The Battle Creek Sanitarium has a story full of interest and suggestion and of instruction as well.

Nearly every one who comes here for the first time expresses surprise at the magnitude

(Continued on page three)

for mother's milk for the human infant. The truth is, there is no perfect substitute; there can be none, because there is no other being that is so exactly prepared to nurse an infant as its own mother. Another human mother can not fill the requirement. It is quite true that another healthy human mother can do better for almost any infant than its own invalid mother; but a cow mother can never

be a good substitute. It seems a very strange thing that we should have reached such a state of degeneracy, with all our knowledge, and the accumulated experience of the ages, that the cow should become the

WET NURSE TO THE HUMAN RACE.

But that is really the situation; and we do not take very good care of the nurse, either. We are not very particular what she has to eat; we are not very particular what kind of a place she sleeps in, nor what sort of air she has to breathe. The cow is not only a wet nurse for the infant, but for the whole family. She is allowed to become filthy, to drink filthy water, to eat food that is anything but proper, and we allow the milk from the cow to be collected in a way that is simply monstrous. We are almost as bad as the people of India.

A lady missionary told me some years ago that for a long time after she went to India, she could not relish milk, because it had an unpleasant flavor. She was extremely fond of milk and finally schooled herself to take the milk provided by the Hindus until she learned that as the natives worshiped the cow, in order to atone for their offenses they were accustomed to punish themselves by

churned into butter, there are almost no germs at all left in the buttermilk, they being carried off with the butter. So you see, in the butter you have the quintessence of the barnyard, and that is what gives the butter its peculiar flavor. That nice Vermont butter you are so very fond of is simply a peculiar kind of barnyard germ that grows in that vicinity. You smile, but there is no nonsense about the statement; it is the absolute fact. This fact was taken advantage of first in Sweden, then in other countries, where patents were taken out for the making of any brand of butter required.

Some years ago I wrote to the doctor who was making special experiments with milk germs in the Connecticut Agricultural Experiment station at Middletown, Conn., and he very kindly sent me thirty-seven different germs that he had found in milk. Four times as many have been found since then. The dust of barns and stables is laden with myriads of germs collected from every imaginable place—the road, the field, the pigsty and chicken coops. Those stored-up germs come floating out again and the barn air is all full of them. The dust settles in the milk pail, and on the cow, and they fall into

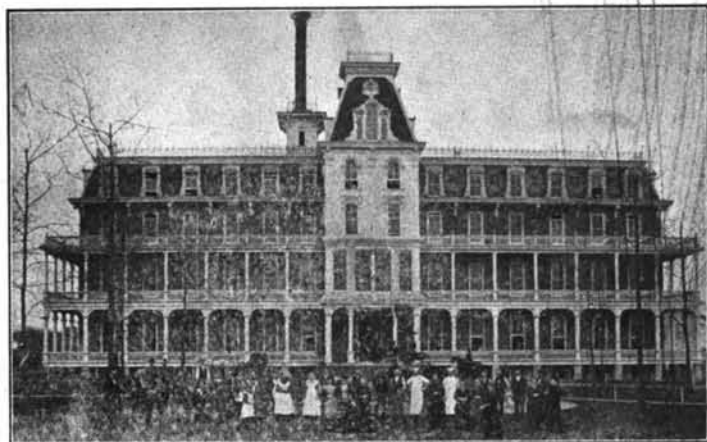
here is an animal that grows very fast, and it needs to have a great amount of salts, carbonate of lime, phosphate of lime, and other lime salts to make bone, but when an animal grows slowly, it does not require so much bone-making material. The same thing is true of flesh. When a large portion of flesh-making material is needed the very same thing is true. So, in the milk of the cow there is about four times as much bone-making material in proportion to the other elements as in the human milk, because the bovine calf grows four times as fast as the human infant.

Now, the same principle applies to other animals. Here, for instance, is the rabbit. A rabbit grows four times as fast as the calf, so the rabbit's milk contains four times as much of this bone-making element as the cow's milk does; so it is very thick and contains a great amount of salts, just about sixteen times as much as the human milk does; so you see the milk supply of every species of animal is suited to the needs of the young of that animal. If a child is fed upon the milk of the cow, you can see the food is disproportionate; it is not adapted to the child, and the child is certain to suffer inconvenience in consequence.

FOUR STOMACHS TO DIGEST COW'S MILK

Here is another very important point. The cow is a ruminating animal, has four stomachs, a very complicated digestive apparatus which is almost thirty times the length of its body. If the cow were five feet long, her alimentary canal would be 150 feet long. I measured the alimentary canal of a sheep, and found it to be thirty-three times as long as the body itself. The human alimentary canal is only ten times the length of the body, and has only one stomach; so you see the cow is provided with a digestive apparatus for gross, rough, hard-to-digest foodstuffs. So the cow's milk is likewise difficult of digestion. As soon as it enters the digestive apparatus, it forms large, hard, tough curds; consequently it has to be manipulated by stomachs adapted to that kind of foodstuffs. But with the human milk this is very different. There is no casein in human milk; it is lac-albumin instead,—a peculiar substance which does not form large, tough curds, but soft, flocculent curds which are readily broken up and easily undergo digestion. The mother who feeds her child on cow's milk knows very well that the child's stools contain the same. None of that thing appears when the child is fed on its natural diet; it is impossible.

Some twenty-five or thirty years ago I used to prescribe milk—I did not know any better, for raw milk was one of the universal prescriptions for everybody. But I repented of it a long time ago. One man for whom I prescribed milk said to me, "Doctor, the last time I took milk it nearly killed me." I asked him to tell me all about it. He said, "I came home one night very late, tired and hungry. It was too late to eat, and I drank about half a pailful of milk and went to bed. I went to sleep very quickly, slept very well for some time, but I woke and found myself sitting up in bed, and I seemed to be choking. I reached my finger down my throat, felt something there, and pulled out a regular rope of milk two yards long."



THE BATTLE CREEK SANITARIUM—1878

placing a portion of the animal's excreta in the milk. There is no religious motive in this country that inspires the milkman to do an act of this sort; but he does it just the same. He never fails to put some of the barnyard filth into the milk; and unless the milk is prepared under extraordinary conditions which entitles it to be labeled "certified milk," it is certain to contain some of this offensive material.

MILLIONS IN IT

A drop of milk of that sort is like a silver mine in Colorado—there are millions in it—swarming millions of bacteria. You sometimes see figures in the newspapers relative to the examination of milk, and milk is shown to have perhaps three million bacteria to the cubic centimeter. A cubic centimeter is fifteen drops, and that would be twelve million bacteria in a teaspoonful. It is not an uncommon thing at all to find ten times that number in milk, though that is a little worse than usual. And cream contains immensely greater numbers, because the germs are carried off with the cream. For they adhere to the fat globules, and when that cream is

the milk pail, and by the time the milking is done, filth and germs are there in great quantities. The milk is strained to get out the coarsest of the filth, but a great deal of it goes through, as you are aware, from what you have seen in the bottom of a dish of new milk. You have not stopped to think of the origin of those little particles which are in the bottom of the pan; had you done so you would have found it in some filthy place.

This is the real state of things as regards the ordinary milk supply. Milk is the filthiest thing that comes upon the table, and flesh is the next.

COW'S MILK NOT SUITABLE

There are several things which must be considered in feeding an infant. In the first place, nature prepares in the mother's milk exactly what that infant needs. I say cow's milk is not fit for the human infant. The milk of a mammal requires all the elements needed for that particular species, and is just adapted to the needs of that particular species. You see, then, naturally, that milk must vary with the animal. For instance,

He might have died had he not relieved his stomach of that mass of curd. Dr. Lawson Tait, the great English surgeon, told me a story that somewhat resembled this. That is the reason why cow's milk is not adapted to infants, and if it is fed to infants the milk must be modified in some way; so for years doctors have been trying to modify the milk. Undoubtedly this modified milk is preferable to ordinary milk. A very common way is to take cream instead of milk and dilute it with water. That is safer for most infants than cow's milk. A still better way is to add the cream to buttermilk. Buttermilk combined with cream makes a far safer diet for an infant than the ordinary cow's milk, because it can not form curds. It is a great deal better to give the child soured milk beaten up, with a little cream added to it, than ordinary milk, and I should recommend it as perhaps the best thing you can get under ordinary circumstances. That may sound strange, but I have just been giving you the reason, telling you the danger of the formation of these hard, tough curds which are not natural for the human infant's stomach.

NUT CREAM A SUBSTITUTE

Another substitute where the natural food is wanting, may be found in nuts, almonds preferably. Dip them into hot water and let them steam until the skins swell and become loose so they can be rubbed off between the hands, then put them in the sun or in the oven at a moderate temperature and let them get thoroughly dry; then crush them or grind them very fine. It is better to grind them first through an ordinary mill, such a clean coffee mill; then crush them up fine in a mortar, add a little water at a time until diluted to the consistency of very thin cream, when it is ready for feeding. With the addition of a little sugar, it is very palatable and is about the most perfect substitute to be found for mother's milk. Do not cook it; because this rawness is one of the important things mother's milk supplies, and which sterilized cow's milk does not supply.

There is something in raw food which is necessary for the human body, though we do not know what it is. The reason why the sailor gets scurvy is because his food is all cooked. Cooking is an after-thought. It is one of those many inventions man has sought out which has led to other mischief. The art of cookery has been productive of a large share of human miseries so far as physical suffering is concerned. But if cow's milk is used it must be sterilized; you must cook it at a temperature of 150° for five or ten minutes. If it is necessary to feed a child on cow's milk, or on barley gruel or rice gruel—rice gruel is best of all the cereals for a young infant,—the child must also have something raw. That can easily be had in the form of orange juice or lemon juice. There is a little citric acid in cow's milk, by the way, and the same is true of mother's milk. This acid seems to be particularly beneficial to children. The juice of an orange every day for even the very youngest infant is extremely beneficial.

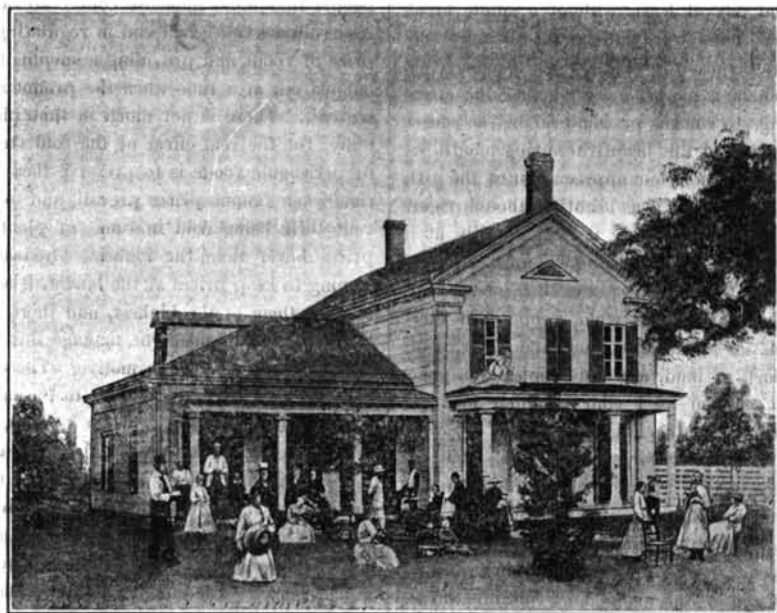
The prepared infant foods on the market will give a child rickets or scurvy if they are fed exclusively. The same is true of sterilized milk. The child will certainly get

scurvy or rickets if it is fed on it exclusively for any length of time. But by the addition of something raw, this difficulty may be avoided. Do not forget that. It may be the juice of an apple or of any sort of fruit. A thing which is particularly good for infants is the banana. The banana must be very ripe, and sweet and mellow; then it must be put through a fine colander so that is a perfect paste; then beat it up with a fork or an egg-beater until it is a nice froth.

There is nothing that clears out the germs from the alimentary canal like a diet of fruit, and there is nothing better than bananas. Whenever the child gets sick, has bowel trouble, has a coated tongue, cries nights, does not have much appetite, is worrisome, fretful in its dreams,—that baby has toxemia, it has autointoxication; it may be pins, of course, but if it is not pins it is germs, almost invariably, and the germs are making poisons which are absorbed into the blood of the child and irritate its sensitive nerves. In such a case feed the child on banana pulp and see how it flourishes.

spect scientific and true, yet the principles of science and truth were not applied at the outset, nor was their relation to the undertaking well understood.

It was nearly forty-five years ago that a small band of people decided to launch what was termed the "Western Health Institute." Accordingly a farm dwelling in the outskirts and upon the highest grounds of Battle Creek was obtained for the purpose. Shortly afterward a building about 16x24 feet in area and two stories in height was erected, the lower floor to be devoted to the administration of all the treatments that were known to the promoters in the way of water-cure. The second story served as a dormitory for the people engaged in the work. Here hot and cold water—principally cold—were administered almost indiscriminately and haphazard for the various forms of disease that presented themselves. Under this regime the work struggled along for ten or twelve years and really made some material growth, as shown by the second view of the main building.



THE BEGINNING—1866

A REMARKABLE DEVELOPMENT

(Continued from page one)

of the enterprise. They had no idea that the place was so large, and represented so much; and as they learn more of its workings, its numerous features and departments, their surprise only increases.

But this institution has not sprung up in a day; it is not the result of a single vision; no one ever conceived this work at a single sitting of imaginative fancy or scientific study. It has come to those who have promoted the undertaking one feature at a time. It has been in every particular and feature a growth, a development from a small beginning which involved a few basic principles that existed in the minds of the originators of the movement in a very embryonic form. Although the conception was in every re-

A son of one of the managers was prevailed upon, quite against his own plans and wishes, to take a medical course in one of the few prominent medical schools of the time. He had mapped out for himself a literary career, and regarded medicine with considerable aversion, and surgery with still more dislike, as contact with suffering gave him pain, and he was not of strong constitution himself.

Emerging from Bellevue Medical College about the year 1876, the proposition of taking the oversight of the Health Institute was presented to him and declined. But the matter was pressed more and more urgently until he was constrained to leave home to avoid the undertaking. But he was followed with persistent requests until he decided to engage in what at that time seemed to be a forlorn cause rapidly running down to extinction.

(Continued on page four)

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The Battle Creek Idea

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VOL. III MARCH 25, 1910 No. 16

"WHAT A BEAUTIFUL MARCH!"

DESPITE the universal aversion to platitudes and "chestnuts," we are over tempted to break one of the rules of newspaper dignity and really talk about the weather. When sour, churlish, tempestuous old March transforms itself for once into the loveliest month of the year, brings us morning after morning bright, clear, and warm, up to its twenty-second day at least, without a single break in its balmy loveliness, it certainly deserves mention. Whether it be surly old March in a new role, or whether the credit belongs to comets, or whatever be the source and cause of this beautiful spring month, we will record here our appreciation of the gift. The winter itself was beautiful though rigorous. Beginning early it kept steadily at it with scarcely an intermission until the very last day of February; and then, about face, sunshine and south wind, robins and bluebirds. A few days of slush and water, a little dash of mud, and old Winter was gone.

So, as you meet your neighbor he says, "Glorious weather!" and you roll up your eye and answer reluctantly, "Y-e-s, but—" For there is a lurking suspicion down in our hearts that there is more coming to us than we have yet received, and that old Boreas is not yet fairly asleep. He may turn over once more and give us a few more cold breaths before becoming comatose. And this possibility so haunts the mind that many fail to get the joy out of this beautiful time that the good and great Father wants us to get.

Not only is this the case with the weather, for there are many people who live in the dread of some ill that lies in the uncertain future. Every pleasant day is a "weather breeder;" every blessing has something up its sleeve, every bright prospect is obscured by the shadow of some possible evil that may, and probably will come, but never does.

Suppose cloudy and dreary days do come in April; it can not rob us of a beautiful March which we have already had. Then, too, it is well for us always to reflect that the weather we have is better than none at all, no matter what it may be. So with all our experiences, the mercies and blessings far outnumber the ills of life.

THE PRO AND CON OF COLD STORAGE

ONE of the first objects to attract the attention of the governmental committee appointed to investigate the cause of the high price of living was the great cold-storage establishments, where immense quantities of animal foods are kept in reserve for long periods of time. Meat and eggs are preserved, not for days or weeks, but for months and years, and then placed upon the market as "fresh" foods. At first peep the sight of these great masses of perishable stuff aroused a shout of protest. But then came along the experts who pronounced the articles thus preserved to be in good condition, and so in a very few days cold-storage men became benefactors rather than "bloated capitalist."

Then James J. Hill and other great promoters and handlers of freight assured the people that these immense conservatories or reservoirs serve a great end in regulating the price of foods and providing a surplus to be handed out at a time when the products are scarcest. There is not much in that philosophy, for the real effect of the cold storage of perishable foods is to preserve them to a time when famine prices prevail, and to prevent their being sold in times of plenty at prices lower than the highest. Instead of serving to keep prices at the lowest, it serves to keep them at the highest, and there is in the minds of the men who manage this business no other object or motive. There are times in the year when, if left to the law of supply and demand, the prices of eggs, butter, and of meats would become much lower than at others, and at such times the poorer classes would have the advantage of lower prices, and in some cases be able to lay in store quantities for use at times of higher prices. The cold-storage business has cut off all that relief, and goes to maintain prices of produce at high tide.

But the real remedy for this state of things is to learn to do without these cold-storage products. The statement that such foods do not deteriorate in that state needs further investigation. If the foods were kept at freezing point—were frozen solid—it is probable that no great putrefactive changes would take place; but there is no doubt that at any temperature above that point the germs of destruction will continue their work. They begin their operations within a few hours of the death of the animal and it is kept up, and it may be considered tolerably certain that a low temperature does not effectually arrest their work. No one will claim that cold-storage products are equal in flavor and quality to the fresh products. They do not improve with age. The tenderness of meats

and poultry, so much desired by gourmards, is evidence of their decay, and of the fact that they contain myriads of poisonous bacteria. The putrefactive process has gone far along, and such foods are unfit to be eaten. Cold-storage of meats and eggs is of no real benefit; but to learn the value of a fleshless diet, and so avoid the necessity of depending upon either the meat market or the flesh conservatory would be the part of wisdom.

A REMARKABLE DEVELOPMENT

(Continued from page three)

tion for want of intelligent application of the principles aimed at.

Dr. J. H. Kellogg, then a young man scarcely more than twenty-one years of age, came into the little institution as the one doctor, and found twelve patients awaiting him, some of whom were very shy of the young doctor and preferred to take their chances at home. He went into the work with a quiet, but nevertheless fixed, determination to place the work upon a basis where it would merit respect and patronage, where medical men would recognize it, and where the principles of scientific medical practice would be fully met.

At that period the name and idea of water-cure was a reproach; whatever was being done in that line was mere luck and chance for kill or cure; those engaged in it saw men as trees walking, and everything was hazy and indistinct. To set the work upon a truly scientific basis, to roll back the tide of reproach, to demonstrate by actual results the correctness of the theories, to win public respect and confidence was the task that confronted the young doctor in his undertaking. But he had obtained a rational view of the situation, he saw the correctness of the position, he seized the standard of truth and started out to win the uneven battle.

The present Battle Creek Sanitarium is the result of the undertaking. This is not related to laud the individual who has been providentially instrumental in carrying forward this undertaking, for he is temporarily absent from this office, and we do not wish to arouse his protests nor violate his sensitive feelings in this matter. The fact is, as often stated by himself, that he was fortunately given possession of valuable truth and seized the opportunity, not to make a name for himself, but, to bring these truths before a suffering world that they might be a blessing to mankind.

The Battle Creek Sanitarium is not the large and imposing building standing where once stood the cottage of the farmer. It is something greater and grander than brick and stone and glass. These buildings and their equipment stand for a great reform, for a work of education and the demonstra-

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tion of the great value that attends the truth. Already the hardest of the task seems to have been done in convincing intelligent men and women of the soundness and importance of right principles in matters of living. The methods and principles here brought into recognition stand as a mighty barrier to the awful tide of deterioration and dissolution of the human race which modern customs and recklessness have raised. If the civilized portion of the human race is to survive for very long, a new course must be taken, a radical reform is necessary, and the Battle Creek Sanitarium stands for that reform. It is the embodiment, the tangible representative, of the principles and forces which are for the saving of the race from ruin.

CAUSES PRODUCING DISEASES

(Continued from page one)

of cases of neurasthenia caused in the same way. Often the patient who gets neurasthenia from shock has a weakened nervous system, though if the shock is severe it may produce it in almost any one. We see illustrations of this very often in accidents, which always have a good deal to do with these cases.

A person goes through some accident—falls down an elevator shaft, or goes through some ordeal like the Iroquois Theater fire. I had many cases from that fire in Chicago; and sometimes in railroad accidents persons meet with severe mental shock. Of course, an accident makes a profound impression upon the mind of an individual, even though he is not physically injured. We examine these cases and find no indication of any physical injury at all; yet in a short time the symptoms of neurasthenia—the tremor in the hand, the mental depression, the insomnia, the feeling of weakness, the morbid fears, or some of a whole lot of symptoms that go with this trouble appear. This illustrates how a mental shock may often cause a nervous trouble.

There is another class of cases, organic diseases, seeming to originate in an injury to the body, which develop into an organic trouble. I am not referring to direct injuries of the brain or nerves, like a man up in Northern Michigan who was working in the woods when a tree came down, hit him on the side of the head, and scooped out a portion of his brains; and the man was paralyzed on the other side.

But we have another class of nervous disorders, as when a man is injured in his arm and develops shaking palsy, beginning in the arm that is injured; or he may have progressive muscular atrophy. There is no direct relation between the injury and the disease, and their relation is not so clear.

Then another class of causes is poisons. We can divide these into three classes: First, poisons that are taken into the body; second, poisons that are produced in the body; and, third, poisons that are caused by infection. The poisons that are usually taken into the body are tea, coffee, alcohol, tobacco and drugs. Tea and coffee, perhaps, would hardly be considered poisons by some, yet they are substances which are not wholesome; they cause a tremor of the hands; they

cause insomnia and general nervousness; they produce mental excitability, and more or less indigestion. They produce all these symptoms particularly in the young.

Some years ago, while I was in New York City, I remember a group of children who came to the outdoor department of Bellevue Hospital, from the same family, and they were exceedingly nervous, restless, and in motion all the time. They did not sleep, and they had many other nervous troubles. The physician found they were taking coffee in excessive amount in their home. He fixed up a bottle of medicine consisting of water with something in it to color it, told them to take that three times a day, to stop taking coffee, and to come to see him every day. When they stopped using the coffee these nervous symptoms disappeared, the tremor was gone, and the children were entirely cured. So I am sure that tea and coffee are irritating to the nervous system.

We are apt to consider some of these things as of not much importance, because we do not see any very positive and decided results from their use. If every time a man should take a cup of coffee it would break

his leg, or give him typhoid fever or consumption, or something like that, we would consider that an argument against the coffee; but the individual who uses tea or coffee day after day, and week after week, month after month and year after year, is poisoning his body, and he establishes a bad condition that becomes chronic, and by and by it is more difficult to get rid of than typhoid fever is, and it may be really a more serious trouble. All people, like the man from Missouri, have to have something they can see, some very tangible proof, and yet I am sure that if any one will cut out the use of tea and coffee, he will very soon experience a decided improvement in his health. Many people come to the Sanitarium, and for the first few days they have headache, caused by leaving off the coffee and the tea. But after they get away from these things two or three days, the headache disappears and the health improves.

Tobacco causes very much the same symptoms as tea or coffee, only more pronounced. Many men who use tobacco are thin in flesh, and when they stop the use of tobacco they gain in flesh. The nicotin in tobacco is poi-

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sonous to the tissues, and prevents them from developing properly. In these days there is a great deal of attention given to scientific agriculture. If we take good care of our bodies, put into them things that will build up tissue; keep poisons out, and pay the same attention to our bodies that the farmer does to raising a good crop of corn, we will get a good crop of health in time;



THE HEALTH INSTITUTE—1868

it is bound to come. There are conditions that are favorable for health, and there are other conditions that are favorable for disease. And the purpose and object of this institution is to find out the things that tend toward making health; to find out the things that are good, that will give health and cure disease; and this we are studying all the time. Whenever anything develops here or in Europe that is useful in treating disease, we get it. But there are certain fundamental principles that we can not get away from.

If a man were going to run a race, and wanted to win in that race, he would not fill his pockets with stones; he would get everything out of his pockets. So the man that is running a race for health, wants to unload all the things that tend to hold him down. He wants to get rid of his tea and his coffee and his tobacco, and his alcohol. This tobacco question is an important one, and I might stand here and talk in a general way against these things, but I want to tell you specifically that tobacco causes diseases of the nervous system; I have seen it in many cases myself, and I know that it is so. I am not apt to accept a thing as proved unless I am pretty sure of it; and I have seen many diseases of the nervous system that I know were due to the use of tobacco.

Some time ago a gentleman came into my office, and he was nearly blind; and his blindness was caused by the use of tobacco. There was no doubt about it. It was not in my opinion alone that that was so, but that would be the opinion of any number of physicians that understood the case. Tobacco causes tremor, causes general nervousness, causes loss of weight; and when a man stops using tobacco he gains in flesh, in very much the same way as a man does when he stops using morphia. Of course, there are some who are obese naturally; and the leaving off of tobacco by such might not cause them to gain flesh; they are abnormally large, and do not need to gain flesh.

Tobacco causes many functional disorders of the nervous system. It causes degenera-

tion of the optic nerve; and you have all heard about the tobacco heart, which is weak, irregular and rapid, seen more often in young men who smoke or chew tobacco; and many other disorders of the nervous system arise from that cause.

Then there is alcohol. Alcohol certainly is responsible for a large list of diseases of the nervous system. General paresis, a very piti-

able disease, is one. Here is a man thirty-five years of age, and he has been a bright, active man; he has been engaged in business; but he has not lived right. Possibly he has done many things that are wrong, and among them he has used alcohol, and his mind begins to fail. This disease takes many different forms. In certain forms, he has

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There are a great many other diseases caused by alcohol, such as multiple neuritis, different forms of paralysis, and hardening of the arteries. Hardening of the arteries is sometimes the first thing that happens where the blood-vessels of the brain are affected. Further, these poisons cause many functional disorders of the nervous system, such as headache, insomnia, pains in different parts of the body, mental depression, and a long list of symptoms coming from this cause. I have not finished my subject to-night, by any means, but I think I have kept you long enough, and I thank you for your attention.

ARRIVALS

THE list of arrivals at the Battle Creek Sanitarium for the week ending March 20 is as follows: G. M. Ferguson, O.; C. W. Brann, Mo.; T. H. Glass, Chicago; John A. Wegener, Detroit; H. J. Bardwell, Chicago; Mrs. Mark Cocherl, Ind.; C. A. Washler, Ind.; M. McMillan, M. McMillan, Jr., Chicago; E. W. McClure, Ia.; E. R. Ebert, Ia.; A. Lenz, Mich.; C. B. McClure, Ia.; Jas. Pryor, Mich.; H. Doughaday, Chicago; D. E. Hewitt, W. Va.; J. F. Bockler, S. Dak.; Miss Etta Russel, Can.; C. L. Blood, Mich.; C. H. Churchill, Calif.; Guy C. Landis and H. C. Akeley, Minn.; R. Wallace, Ia.; Mr. and Mrs. A. C. Baxter, O.; Mr. and Mrs. W. H. Johnson, Okla.; Ruth Axe Brown, Ind.; Mrs. B. Austin Taft, Denver; A. B. Wray, N. Y.; R. F. Burdick, N. Y.; Mrs. W. Z. Stuart, Chicago; Louise H. Morton, Minneapolis; C. B. Stephenson, Ind.; F. E. Coffman, O.; W. G. Swan, Toronto; Jos. Gardella, Mo.; L. W. Monteverde, Pittsburgh; Belle McLean, Mich.; A. B. Scarborough and Mrs. A. B. Scarborough, Tex.; N. N. Smith, Minneapolis; J. C. Wayman, Chicago; Miss E. L. Hodgson, Detroit; W. E. Williams and Mrs. Williams, Ind.; Mrs. R. L. Martin, O.; I. W. Whitstone, O.; Jno. V. Munson and wife, N. J.; H. J. Van Patten, Mich.; W. E. Austin, N. Y.; Myron

L. Low, Pa.; Elmer T. Butler, New York City; W. D. Landry, La.; S. M. Lyons, M. D., La.; Mrs. R. H. Shropshire and Mrs. D. R. Henderson, Pa.; Lily F. Carpenter, M. D., Cincinnati; Mrs. Mary L. Hormany, Pittsburg; Frank Husband, Pa.; Jas. Van Buren, Mo.; Fred Beyer, Mo.; Simon Casady, Des Moines; J. J. Fruman, Mich.; Miss Susan Siebert, O.; N. R. Hamilton and wife, Ky.; Mrs. Emma Lusk and Miss Minnie Lusk, Mich.; Mrs. Rose E. Helme, Mich.; Miss Augusta Price, Mich.; Mrs. E. Berthold, Ill.; J. W. Morrow, Tex.; B. Nelson and Mrs. Nelson, Tex.; John T. Campbell and S. E. Campbell, Ill.; Mrs. H. G. Cate, Wis.; R. C. Stiefel, Pa.; J. D. Rogers, Ky.; Mrs. Jas. A. Wilson, Ga.; Frank Transen, Mrs. M. H. Stone, O.; Roy Hamilton, Pittsburg; W. R. Lackland, Ill.; J. B. Hende, Mo.; Helen Jackson, S. Dak.; L. M. Bowers, Mich.; Mrs. J. W. Campbell and Miss Donnalerris, S. Dak.; Mabel Hannah, Chicago; Mrs. Ben Levy, Mo.; Mrs. L. Kearney, Mich.; O. E. Mall, Mich.; F. O. Cunningham, Mass.; Mrs. W. G. Hammond and Miss Hammond, Ill.; Miss Farnsworth, Mo.; L. W. Lally, W. Va.; D. M. Bottoms, Ala.; Emile Bucher and wife, Mich.; Mrs. J. H. Blain, Ill.; Cornelia Templeton Jewett, Ill.; Mrs. C. T. Hoffman, Vancouver; R. C. Mills and wife, Chicago; D. E. Hewitt, Ind.; C. D. Montrose, Detroit; Mrs. W. W. Leonard, O.; L. L. Pfeiffer and wife, Ind.; Mrs. F. T. McBride, Mont.; J. M. Barker, Ind.; Mrs. M. DeVries, Mich.; A. Sorge, Jr., Mich.; Guy C. Landis, Minneapolis; Mrs. W. E. Pryor, Minn.; W. R. Fox, Grand Rapids; W. D. Smith, Jr., Mich.; Jacob Fisher, Ind.; F. H. Fuller and wife, Mich.; Thos. M. Weber and Miss Ruth M. Weber, and B. R. Leffler, Detroit; Mrs. T. H. Ray, Mont.; W. A. Newman, Mrs. Newman and Mrs. M. S. Briscoe, Ill.; C. P. Sayles, Mich.; F. Wolf, City; Geo. E. Ranney, Mich.

News and Personals

Dr. Lily F. Carpenter, of Cincinnati, an old friend of the institution, is spending a short time with us.

Mr. and Mrs. Emile Beucher, of Manchester, England, are stopping in the institution for rest and treatment.

Miss Helen Jackson, of Aberdeen, S. Dak., is spending a few days with her mother, who is a patient in the institution.

Miss Ruth Axe Brown, of Valparaiso, Ind., spent several days last week with friends and acquaintances at the Sanitarium.

Mrs. F. H. Ray, of Helena, Mont., who was a patient here several years ago, is again stopping with us for rest and treatment.

Mrs. W. W. Leonard has returned to the Sanitarium for further rest and treatment. Mrs. Leonard is the wife of Dr. Leonard, of Akron, Ohio.

On next Sabbath forenoon the services will be in celebration of the Easter season. There will be special music by the choir and the chapel will be decorated for the occasion.

Mr. W. R. Fox, of Grand Rapids, president of the Fox Typewriter Company, spent a day at the Sanitarium last week becoming acquainted with the institution with the view of coming here in the future from time to time for rest.

Miss Myrtle O'Donnell, formerly a stenographer with the Sanitarium, but recently engaged in Chicago, has returned and is employed in the business office. Her health has been poor for some time and she will work "part time" while taking treatment. We are pleased to have Miss O'Donnell with us again.

Just a Word To Our Patrons

The Sanitarium has a first class washery and your clothes will receive special care at reasonable prices.

Phone Office for boy, or

SANITARIUM LAUNDRY

TWO COURSES IN DOMESTIC SCIENCE

The One-Year Course, intended especially for Matrons and Housekeepers or for those who desire it for its educational value, includes General Cookery, Invalid Cookery, Institutional Cookery and Practice Cookery, Anatomy and Physiology, Household Chemistry, Home Nursing, Household Microscopy, Household Microscopy, Household Economics and Architecture, Sewing, Medical Dietetics, Theory, Table Service, Physical Culture, etc.

The Two-Year or professional course, intended especially for Dietitians, Lecturers, and Demonstrators, includes all the studies of the one-year course, and in addition Advanced Chemistry, Advanced Physiology, Sanitary Science, Bacteriology, and Hygiene, and Advanced English.

ONE SPECIAL FEATURE of this school is that students are given an opportunity to meet a large part of their expenses by work along lines which aid them in their studies.

**The Battle Creek Sanitarium School
of Health and Household Economics**

**BATTLE CREEK
MICHIGAN**

Mrs. J. W. Campbell and son, Coler, arrived last week from Huron, S. Dak. They were accompanied by Miss Donna Wells, of the same city.

Rev. F. O. Cunningham, one of the Evangelistic Campaign workers who labored in Battle Creek last winter, is again a guest at the Sanitarium.

C. F. Moore and wife, old friends and patients of the Sanitarium, who have been spending the winter in Long Beach, Calif., are stopping with us a few days before returning to their home in St. Clair, Mich.

Dr. R. H. Harris, registrar of the A. M. M. C., is in Baltimore this week in attendance upon the annual meeting of the American Association of Medical Colleges. The convention continues through the 22d, 23d and 24th.

Miss Ruth Tenney, who has been in Minneapolis since early in January carrying on class work in Domestic Science, has returned and will resume her work in the Sanitarium school for a time. Miss Ella Thompson remains in Minneapolis to carry the work still further.

Dr. and Mrs. J. H. Kellogg have been spending some weeks in Porto Rico with their daughter, Mrs. Dr. Knapp. While there Dr. Kellogg has been engaged in doing some important writing, for which he required uninterrupted opportunity. They expect to start on the return journey this week,

and will soon be with us again. We all stand ready to give them a hearty welcome.

The Sanitarium walking party goes forth about once a week under the leadership of Miss M. Isabelle Bovee, instructor in physical culture. The fine weather we are enjoying this month affords the most favorable conditions for walking. The air is crisp and fresh but not cold, the roads are good, and conditions are just right for a jaunt. The first trip was to the flowing wells at Verona, a distance of at least four miles. The second was to Goguwac Lake, which is a still longer walk. This week the walk was to the Country Club and the golf links.

The Sanitarium W. C. T. U. held a meeting in the Sanitarium parlor Sunday afternoon. Short talks were given by Rev. F. O. Cunningham and Dr. Z. T. Griffin, missionary from India, which were interesting and instructive. A short program with special music was enjoyed by all in attendance.

Dr. John F. Morse, of the Sanitarium medical staff, expects to leave us in April for the purpose of visiting the Scotch universities in Edinburgh and Glasgow, and taking post-graduate studies. He will be gone all summer, and we shall miss him. He will attend the great World's Missionary Conference which meets in June, being held once in ten years.

Miss Louise H. Morton, of Minneapolis, matron of the tea rooms in the New England House-furnishing store, has been spending a week at the Sanitarium investigating its

methods with the view of establishing a hygienic department in her company's lunch room. Miss Ruth Tenney, of the Sanitarium Domestic Science School, will go to Minneapolis for the purpose of assisting in the establishment of these rooms. The store is one of the largest and most popular in Minneapolis. The president of the company, Mr. Harris, having spent some time in the Sanitarium, has conceived the idea of placing the benefits of healthful food before the people of his enterprising city.

The Missionary Rally held its usual meeting on Sunday afternoon, March 20, in East Hall parlor. The meeting was led by Mr. W. Madison, the speaker being Rev. W. A. Burris, of Port Arthur, Canada. Mr. Burris gave a most interesting account of his work in Canada, where he has been the means of forming a large Christian colony, the government of the Dominion of Canada having granted him large tracts of land which have been given to men of Christian character who were willing to settle there and build homes for themselves and develop farm lands. In this way a large number of families from all portions of the United States have been comfortably settled on their own farms and have thus made a very large and thoroughly successful Christian colony in and around the city of Port Arthur.

THE NEXT TIME

You desire to go to Detroit, use the solid vestibuled train leaving Battle Creek 3:50 P. M. via the Grand Trunk Railway System. No change of cars. 3-24-31, 4-7.

Battle Creek Sanitarium School of Physical Education

A GREAT OPPORTUNITY FOR YOUNG MEN AND WOMEN. Expenses may be largely paid in work. Gymnastics—German and Swedish; Dietetics; Massage; Hydrotherapy; What to do in Accidents, Emergencies and Common Maladies; Medical Gymnastics. Anatomy and Physiology; Chemical and Anatomical Laboratory work; Large Indoor and Outdoor Gymnasium and Swimming Pools.



Large Faculty of able teachers and trainers. Course one year. Tuition full year, \$85.00; Board and Room, \$3.00 to \$3.50. A number of students may pay their way in work.

Mr. Horace Fletcher will give a course of lectures on vital economics, and Mr. John F. Stapleton, formerly of the Yale Gymnasium, a special course on theory and practice of Swedish gymnastics.

The next regular term (new class beginning) opens March 28, 1910.

Any who are interested will be sent illustrated announcement with further details on request. Address:

The Battle Creek Sanitarium School of Physical Education
BATTLE CREEK, - - - MICHIGAN

THE · BATTLE · CREEK · IDEA

Vol. III No. 17

BATTLE CREEK, MICH., APRIL 1, 1910

Price 2 Cents



THE BENEFITS OF REST AND EXERCISE

Natural Remedies in the Treatment of Disease—Lecture in the Sanitarium Parlor by W. H. Riley, M. D.

Our subject for to-night is nature's remedies in the treatment of disease. In consid-

The Sanitarium Medical System

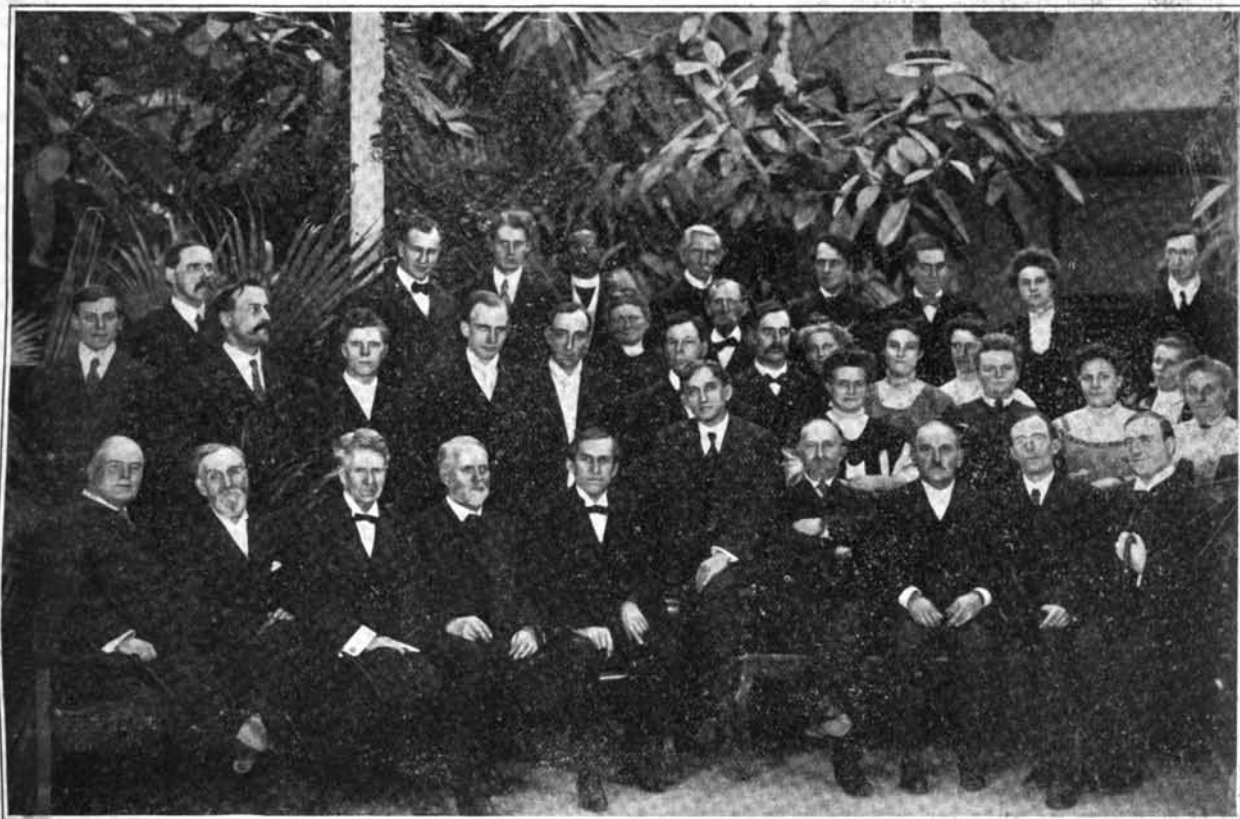
The Battle Creek Sanitarium Has No Fads or Fancies—Lays Claim to No Secrets or Wonderful Legerdemain

The Sanitarium makes no pretense of healing disease by any process of which they

WHEN THE WHITE BLOOD CELLS STRIKE

A Lecture in the Sanitarium Parlor by Dr. J. H. Kellogg on Macrophages, the Guardians of Our Bodies

THERE are certain cells whose function it is to destroy microbes, and to act as seaven-



MINISTERS OF BATTLE CREEK, MARSHALL AND VICINITY WITH THEIR WIVES AT THE SANITARIUM

ering this subject, we wish to bring to your attention those remedies outside of medicine which can be used in the treatment of disease, particularly the natural forces, such as light, heat, cold, exercise and rest. We shall not be able to consider all of them to-night.

At the outset, it is important that we have some idea of what disease and health are. In order to enjoy good health, every organ in the body must do its work properly.

(Continued on page five)

have the monopoly; the physicians do not profess to be in possession of some occult secret or power by which they have peculiar advantage over the medical world; they do not even claim to have discovered any new remedies or specifics. They do not claim any "cure-all" elixir or nostrum, they do not depend upon any mineral springs; they make no pretense of having any miracle-working medicines that are not already in possession

(Continued on page three)

gers to eat up the debris, or to gather up the particles in the blood. These cells are the white blood-cells.

Thirty-five or more years ago I made an experiment with a frog. I injected some indigo into the frog's body, and the next morning I found every one of these large, white cells had several particles of indigo inside of it. They had been going all through the body, picking up the particles of indigo. I had injected, so the frog had been delivered

from death by the activity of these curious, living cells, really little living creatures.

If one sprains his ankle, there is a swelling, and by and by that swelling disappears. It is because these little cells are poured out into the tissues, and gradually eat away that swelling and digest it. They produce a digestive fluid that absorbs and carries it away.

The human hair is a tube, filled with fluid, and the color is due to the little specks of coloring matter scattered through it. Examination under the microscope shows the hair filled with coloring matter, or brown pigment. These cells sometimes enter the tubes into the hair, swallow these brown specks and run away with them. Then you find your hair turning white instead of brown. The coloring matter has been stolen. This does not often take place at once, but it may take place in the course of a few days or weeks. Some of you have already been attacked in that way, and I have myself to some extent, and I am doing all I can to keep on friendly terms with those macro-

while she was still alive, and she had not energy or life enough to drive it away. The hawk perceived that cow as almost dead and unable to resist, and so was making its meal before the animal had actually died.

Now, that is exactly what happens in our bodies. When the body becomes reduced by wrong habits, by alcohol, tobacco, tea, coffee, meat-eating, and by colon accumulations and putrefactions in the body,—when auto-intoxication, in other words, has gone on to that degree that the vitality of the body is reduced sufficiently, then it is attacked by these scavengers which live within us.

Some little time ago, a New York bacteriologist made this experiment, showing the power of the macrophages to destroy microbes: He took a healthy man, had him sit down in a chair, put some very dangerous, virulent germs on a small area in his nose, and then watched that spot. They spread around just a little, but mucus began to pour out, and he kept taking the mucus away, and at the end of three hours, every one

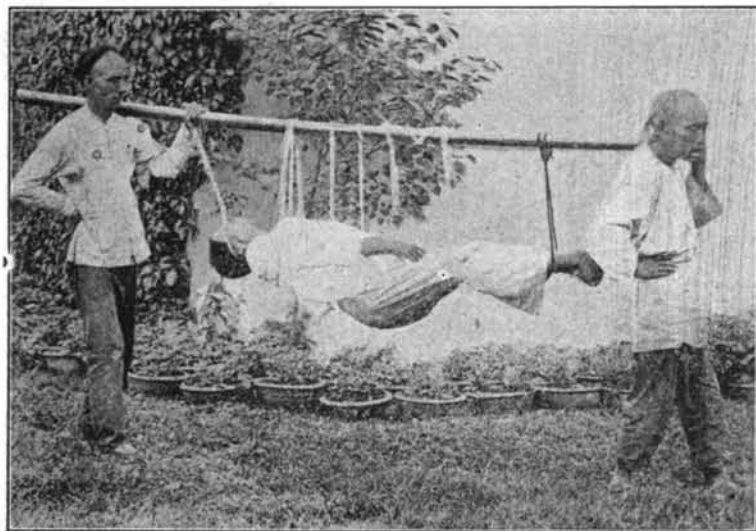
that we keep our vital resistance so high that we do not invite these attacks.

It is the legitimate duty of the macrophages to hunt up the rubbish of the body, the broken-down tissues, destroy it, carry it off, remove it from the body, exactly as the turkey buzzard removes the rubbish from the back door in tropical countries.

On my first visit to Mexico City, some years ago, while going down the street I passed a policeman, and I said to the friend who was going about with me, "How is this city? Is it a safe place?" "Oh, yes," he said, "as long as the policemen are here." I said, "I am more afraid of the policemen than any one else." He said, "You need not be afraid of them." I said, "Why do they have such fierce, bloodthirsty looking fellows for policemen?" He said, "I will tell you." And he proceeded to tell me how, when Diaz took charge of things in Mexico, the whole country was overrun with brigands, and he had a great time with them, and for years the whole country was so infested by those brigands that it was unsafe to go outside of the town.

At that time a tram-car ran out eight or ten miles to a little village, and there were houses all along the way; and the cars went four together, in the form of a train, and they had two policemen on every car; a squad of eight or ten policemen went right along to prevent the trains from being attacked by robbers. Diaz set to work to conquer those brigands, but they were too many for him, scattered all about, and they knew the mountains better than he did, and he could not get them under control. Finally he called a council of them, and he said, "How much do you average by your business?" They said, so much. "All right," he said; "come down and be policemen for me, and I will pay you more." So the brigands were brought down and put into positions as policemen, and they made excellent policemen. As a matter of fact, they are making more money than they did before, and are living happily, more contentedly, and they are quite satisfied. I said to my friend, "Suppose these policemen should sometime get into a bad mood and turn upon the city, what would happen?"

Every one of us is living in just that situation. We have within us creatures, millions upon millions of them; and they are in the body keeping order, clearing away the rubbish, doing useful work for us; but if we do not look out, if we get ourselves down to too low a level, they will turn upon us and devour us. That is the way the blood-vessels become hardened. It is because these macrophages get into the walls of the blood-vessels; the blood-vessels become so poisoned by the materials taken into the body, the nicotine, the tea, coffee, alcohol, and poisons absorbed from meat, uric acid and products of putrefaction absorbed from the colon,—these walls become so saturated with these poisons that the turkey buzzards of the body, the scavengers of the body, swarm into the walls of the blood-vessels and consume them as though it were carrion, as though it were something that needed to be removed from the body; and they carry off the tissues of the body, and fat is deposited in place of the fibrous matter which makes the walls strong.



A CHINESE AMBULANCE

phages or white blood cells, that they may not turn my hair too rapidly. The way to do this is to keep your body just as clean and well as possible, because when the body is kept up on a high level of vitality, then those macrophages do not make their attacks; but it is when the body becomes reduced in vitality, when the tissues become lowered in their resistance, that these macrophages attack the body as though it were rubbish.

You know there are certain kinds of birds that are scavengers. The turkey buzzard is one of these. Our friends in the South cultivate turkey buzzards, and do not allow anybody to shoot them. They are the sanitary police in many Southern cities, and perform a very important duty there. In many parts of the country, hawks and eagles are also scavenger birds. Some years ago I was riding across the Western plains, and I saw a sight I shall never forget. A poor cow, just a skeleton, reduced by disease so that the skin was hanging on her bones, was staggering along by the railroad, and perched upon her back was a hawk picking her bones

of those germs was dead. If they had been introduced into the nose of a diseased man, or a drunken man, perhaps, they would have lived and spread all through the nose. A person whose blood is right and whose whole body is in a healthy state, is strongly fortified against disease.

I met a man the other day suffering from chronic tuberculosis, with the accompanying symptoms. His tongue was very foul. His history showed plainly that the man had gotten his tuberculosis through his dissipation, which had reduced the body to such an extent that it could not resist the germs; and they found him a fertile field in which to grow. In my opinion, reduced vital resistance is the foundation of tuberculosis in a great number of cases, probably in the great majority of cases. That is why these patients get well when they go outdoors to live, and when attention is given to diet. Living outdoors raises the vital resistance, and that is the way the disease is finally cured. Therefore, it is greatly important

Then nature very kindly deposits carbonate of lime to fill up the gap and to make the arteries temporarily hard enough so that they will not immediately rupture. It is a conservative process, so when your arteries are hard, you ought to be thankful that they are not rather broken. It is that hardening that saves from immediate death; so the hardening process is incidentally an advantage.

The same thing happens in other tissues; for example, the liver, and the gall-bladder, which do the most important work of carrying away poisons, secreting bile, aiding the process of digestion, and in a great variety of ways helping on the functions of the body. The poisons passing through the liver may so damage the liver that the macrophages, the scavengers, may attack the liver and destroy it, until there is nothing left but a poor, miserable representation of the once healthy organ. The macrophages have destroyed the normal liver cells, and fibrous matter is deposited in its place as a protection until, by and by, the liver becomes almost nothing more than a mass of scabby tissue.

This scar tissue contracts and squeezes the healthy tissue out of existence; so the liver by and by becomes incapable of doing its work, and the blood that should pass through it can no longer get through it, the result being that the blood forces the serum out into the abdominal cavity, and we have what is known as abdominal dropsy. This condition is called cirrhosis of the liver and was formerly believed to be due only to the use of alcohol. But Professor Voix, of Paris, has, within the last ten years, made the most interesting discovery, as a result of a great number of experiments made upon animals, and observations made upon human beings, that other things besides gin and alcohol produce this so-called drunkard's liver, this shriveled state of the organ. He found other most potent causes of it. For example, he discovered that pepper has six times the power to make drunkard's liver that alcohol has. Think of it!—the red peppers you used to eat, the mustard, capsicum, peppercorn, ginger, and all those hot, stinging, burning things that blister and smart as they go down your throat—those things are all liver-destroying substances. They damage the liver so that it loses its power to resist, and in come these swarming macrophages, and they work the mischief.

Professor Voix found that the liver and kidneys were made to shrink in this way not only by alcohol, pepper, mustard, and things of that sort, but also by vinegar, for example; the acetic acid of vinegar has twice the power alcohol has to make gin liver. He found dyspepsia was a common cause of it, a more common cause by far than alcohol. Another thing he discovered was that the only way alcohol makes this kind of liver is by making the man a dyspeptic. Anything which causes dyspepsia makes this sort of liver.

Professor Voix made another very interesting experiment. He took a small amount of fecal matter, fed it to a rabbit mixed with its other food, and found that produced the same kind of change in the liver. He took the germs that came from the fecal matters,

put them into the test-tube, let them grow, filtered off the clear solution. He gave this to a rat and a guinea-pig, and he found it also produced the same changes in the liver and the spleen and the kidneys. So he proved that the poisons from the colon are capable of producing exactly the same changes in the liver, kidneys, spleen, and blood-vessels. In this way was found a cause for what is called arteriosclerosis, or hardening of the arteries. The colon poisons are one cause, and undoubtedly they are the chief cause. I have never yet found a person suffering from arteriosclerosis, or hardened arteries, who did not give evidence of some of these poisons that had been at work in the body and generated the colon poison. When we found that condition, we formerly considered the cause was tea, coffee, or alcohol, or something of that kind; but now we know the most common cause is the poisons from the colon.

A person with hardened arteries is like a man walking right along close to the edge of a precipice. One misstep will carry him over. But if he walks straight, and tries to get a little farther away from the precipice, and keeps as far away from the edge as he can, he may be able to walk on for a long time, while just one step too near the precipice will carry him over; and it is important that every man who has this condition of hardening of the arteries should know that thing, and I am talking very earnestly here, not to frighten you, but to show you there is a way to avoid this danger; to show you where the danger is, for "to be forewarned is to be forearmed." If you know where the danger is, you can keep away from it. If you have some nitro-glycerin in the house, you will not hit it with a hammer, will you? But that is what some people do who have this hardening of the arteries. Somebody comes along and invites them to go out to a turkey dinner just this once. That may be too much, because the arteries may be under such a pressure that they are just ready to burst, and it needs only just a little more to produce a stroke of apoplexy; only needs one little extra dose or two of poison to overwhelm the liver and precipitate the uremic attack; so it is important to know.

SANITARIUM MEDICAL SYSTEM

(Continued from page one)

of others. The reputation of the institution and its success does not rest upon the virtues of some specific remedies of their own invention. In short, there is nothing occult or exclusive or special or peculiarly wonderful about the work of the institution either in the claims put forth or in the practical work done here, though the results are both natural and wonderful.

On the contrary, the admission is freely made that the sole reliance of the doctors of this institution in restoring the health of those who come here for treatment is upon the inherent ability of the body to restore itself. The Sanitarium physicians emphatically deny that there is any medicine or drug or agency in existence that contains in itself the power to restore lost strength or build up waste tissues, or replenish and renew

the blood supply, or check wasting disease, or arrest the inroads of death. The only power that can raise up the sick is the power that is within us, the inherent vitality placed in our systems and maintained there by the Creator.

This vitality is nourished and restored by the resources of nature that are the most abundant and free about us. The art of preserving health and restoring it when lost is identical with the art of the proper use of the agencies which support life from day to day in sickness and in health. The whole secret of legitimate therapeutics is bound up in sustaining right relations to the conditions of life in the use and application of the things that are nearest within our reach. We do not need to delve in the mysteries of chemistry and materia medica in order to discover some hitherto unknown and unheard-of medium for working impossible wonders in creating and restoring lost health, and "no change of diet required." It will never be found, though there are plenty of charlatans who make their boasts of being actually in possession of the panacea.

The utmost that can be done in the healing of disease by any man or woman is to supply the necessary conditions to enable the healing, restoring power to work within us. Our vital powers require material with which to work, and they require that the obstacles that bad practices have thrown in the way of vital progress be removed. The work of supplying the material on which the work of restoration can be sustained, and the removing of the heaped up obstacles that lie in the path of recovery devolves upon the intelligent co-operation of patient and physician. Nature can not make bricks with neither clay nor straw; drugs will not supply either. Swallowing doses of medicine will not restore wasted muscles or lung tissue. Wasted strength and worn-out tissue can be replaced only by a supply of those materials out of which they are composed, and the work must be done in the natural way of digestion and assimilation, and there is no other way in which it can be done.

Good food, pure air, pure water, are the only healing and restoring agencies in existence. The digestive system, the nervous system, the circulatory system, or some of the many functional departments of the body may be reduced in strength and efficiency so as to require special assistance either in removing the obstructions in the system that hinder their operations; or, perhaps, they may need special care in restoring their normal action after it has been impaired. This help we may give if we act intelligently. First, by such a reformation of the habits as will discontinue the hindering causes; second, by affording to the exhausted energies necessary rest and proper exercise. and by stimulating activity of the vital organs by the use of natural stimulation which does not poison or otherwise debilitate the body, leaving it worse off than it was before. The stimulants suggested by the study of our surroundings and requirements are principally these of heat and cold, conveniently applied through the medium of water, electricity in its various forms, and exercise.

(Continued on page four)

The Battle Creek Idea

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BATTLE CREEK, MICHIGAN

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VOL. III APRIL 1, 1910 No. 17

SOWING AND REAPING

THE time for sowing seeds is now. The spring has again opened the ground for the reception of the precious seed which is to bring bread to the eater. The farmer prepares the ground and then selects his seed with the utmost care, because he well knows that upon the selection of proper seed must largely rest the results of his labor. He desires to have the very best reward for his toil, and so exercises his best judgment in regard to what he places in the ground. We'll see the good sense of this.

What is true of the soil is true of the life. It is true intellectually and physically; we sow our physical, our moral, our intellectual seed especially during that period of life when the system is being constructed and taking form—while the character is being molded and is plastic. In childhood and youth and early manhood and womanhood are the critical days of seed-sowing. It is then that the habits become stereotyped and fixed, and it is then the influences which are to give shape to our after life are being introduced.

How very important it is that care should be exercised at such a time as this so that no wrong principles should be incorporated into our lives that will spring up and in after years bring trouble, sorrow and premature death. How many thousands of people there are who are brought to realize in after years that they have sown to the wind and are compelled to reap the whirlwind. How many are prematurely old and die "before their time" because of thoughtless living in early life. Old age is cut off, or its years are spent in the agonies of rheumatism, with faculties impaired, with arteries clogged and hardened, with steps feeble and trembling, while they ought to be coming down like a shock of ripened corn, happy and peaceful and in the possession of their mind and faculties.

It is vain to defer all consideration of these things until the evils are upon us, for there is no way to retrace our steps after we have once passed over the ground. Now is the opportunity to sow right seed for our reaping by and by.

A NATIONAL HEALTH DEPARTMENT

THERE is a movement already introduced in Congress to have a department of public health established as a branch of the federal government. This movement is initiated by the Committee of One Hundred, appointed by President Roosevelt, of which Professor Irving Fisher, of Yale, is the president. This is undoubtedly a very proper thing to do. The Senator who introduced the measure providing for the establishment of the health bureau referred to the financial aspects of the public health, showing the annual cost to the nation of sickness and loss by death. This was done by placing an hypothetical value upon the life and health of the individual. From the economic standpoint the conservation of health certainly is a vital consideration. Good health is rightfully estimated to be the best asset the individual possesses. The loss of health is, next to the loss of life, the greatest calamity that befalls the individual. What affects the individual affects the community at large. Our nation is but an aggregation of individuals, and our best national asset is the health and strength of our people. Very properly, then, does the health of the commonwealth become a matter for the careful consideration of our public authorities.

Closely associated with legislation on sanitary and hygienic lines is the question of paternalism and individual liberty. The preservation of health would necessarily involve some measures that many people would regard as obnoxious and unnecessary. How that would be is well illustrated by the experience of those countries that have undertaken to enforce vaccination. Many people have chosen to languish in jail rather than to permit themselves or their families to be subjected to the perils of vaccination, though the great majority of people endorse the requirement and favor its enforcement.

There are people who object to taking a bath, and there are those who enjoy having a pig-sty in their front yard; there are people (so-called) who revel in filth, and would object to being deprived of their favorite smells and unwholesome surroundings. No doubt the enforcement of public health measures would disconcert some people, but all right-minded people say let it come. Let us take active measures to ward off the inroads of disease. Let the powerful hand of our general government be placed behind such a movement. There is really no excuse for allowing the ignorance and superstitions, or the indifference, of a small class of people to hinder the progress and welfare of the whole community.

SANITARIUM MEDICAL SYSTEM

(Continued from page three)

The Sanitarium system of treating disease consists solely and only in meeting the above conditions. It does not appeal to any artificial help or agency; it does not depend upon any specific invention; it seeks only to assist the human system in appropriating to itself the remedies and nourishment to be found in the most abundant provisions of nature. The first great object of Sanitarium effort is to teach people how to retain and maintain their health. It is better to avoid illness than it is to suffer from it and run the risk of recovery. Many millions of dollars would be saved to this country and untold misery be spared to individuals if there were an adequate knowledge of the right ways of living prevalent in our society. People are woefully ignorant in the matter of preserving their own health, and often that ignorance seems to be premeditated and wilful. People knowingly trample upon the plainest conditions of right living with impunity, only to learn later the consequence of such transgression. What we all need is an enlightened conscience in the matter of physical righteousness that will lead us to avoid all forms of physical transgression and to keep our bodies in the very best possible trim, supplied with the wholesome requisites for maintaining life and health at its best.

In its ministrations to the sick the Sanitarium resorts only to those measures which are indicated above, in supplying to one who is ill the necessary elements of sound nutrition and healthful restoration; in seeking to assist and encourage in the body those vital activities which alone can produce recovery. The conditions are comparatively few. The necessary elements are simple. There is a variety of methods of applying these means to the wants of the various patients. These are seen in the many forms of hydiatic treatments, in the various forms of exercise, both voluntary and mechanical or passive, in the many applications of electricity, light, heat and cold, which are used to stimulate into activity the weakened operations of vital organs.

The Sanitarium aims at nothing more than to furnish a great laboratory of natural methods and processes. Its most important work is undoubtedly in the education of the people to the ways and methods of simple living in the intelligent use of those blessings most commonly provided for us by our beneficent Creator, in good food, pure water, pure air, proper clothing and protection, and in those remedial agencies which assist in the removal of obstructions with which bad habits have impeded the path to health, and in exciting into activity the vital energies of the system.

FOR SALE—I have on hand at all times good values in improved and vacant property. Fire insurance written in the strongest companies.

L. W. SCHRAM,
Notary Public.

COR. W. MAIN AND WASHINGTON AVE., N.
Automatic Phone, 1297. Bell, 327 1 ring.

This cursory glance over the system will, we are sure, commend it to the good sense of every one who stops to consider the philosophy of this system of treatment of disease. There is nothing artificial or empirical about it. It is based upon sound principles; it is correlated to the great truths which govern our very existence, and so must be right, sound, and practical.

THE BENEFITS OF REST

(Continued from page one)

There must be a proper circulation of the blood through every tissue and every organ, and the blood must be of a good quality, carrying proper food to the tissues, and carrying away the wastes that are produced in the tissues; and when all the different organs of the body act in this way, under normal conditions, then one has what we call health.

On the other hand, when any function of the body becomes disordered, or when the blood circulating through an organ is impure, or contains poisons or anything else that is harmful, then we have disordered or diseased conditions.

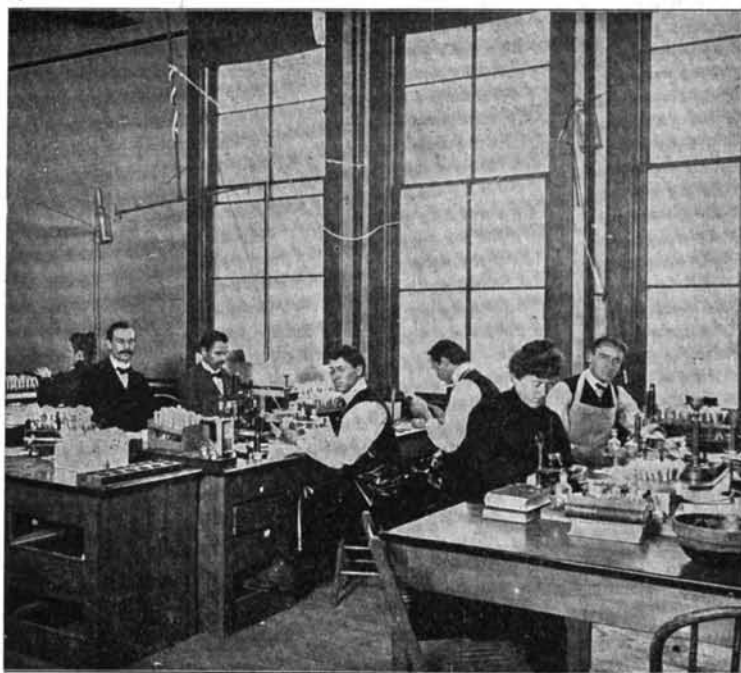
We naturally divide disease into two large groups: First, those which are called functional diseases, in which the function of the organ only is disturbed, and in which there are no organic changes in the tissues of the organ itself. Then there are organic diseases in which there are organic changes occurring in the tissues of any organ, or in the tissues of several organs of the body. Of course, where there is organic change in the tissues, there must of necessity be along with that a disturbance of function. So organic diseases are always functional; but, on the other hand, merely functional disorders are

not attended by any organic change in tissue.

I apprehend that when the Lord made man in the beginning, he gave him a full measure of health, a full degree of vigor and vitality; but as we look at man at this time we find scarcely one who enjoys what we may call perfect health. The reason for that is that as the race has come down through the ages, the laws of our own being have been violated. Some have done one thing and others have done something else; so that the vitality, or vigor, whatever we call

it, that is in our body, has been greatly impaired in the human family.

I say that this has come as the result of the violation of the laws of our own body. So at the present time we measure a man up and find that he has perhaps seventy degrees of what we may call normal vigor or health, or seventy per cent of health. Another man may have but fifty per cent, and another man may have but twenty per cent, and another man may have only ten per cent; and so we may come on down to five



IN THE SANITARIUM LABORATORIES

THE MEDICAL MISSIONARY

An Illustrated Monthly Magazine Devoted to the Interests of Home and Foreign Medical Missions

Contributions direct from all parts of the field represent the work of medical missions in various parts of the world as carried on by all denominations.

A Medical Department is conducted by J. H. Kellogg, M. D., Superintendent of the Battle Creek Sanitarium.

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per cent. There are very few people who have a full measure, or one hundred per cent of health. Of course, these figures are simply illustrative.

Now, if one has enough of this vigor or health in his body, he can overcome any disease. This statement may seem a little extravagant, and yet I think it is not far from the truth. Disease is an enemy to the body, and we have to fight it. If a man's fighting qualities are good enough, he can overcome it and drive it out of his body. It is largely a matter of how much of this fighting quality one has in his body. It is a matter of the condition of the tissues, of how much vitality there is in them; that is the thing that is important. And that is the thing that keeps us well and that heals us when we are sick.

It is very important that we should get in our minds the idea that the thing that cures us is the vital forces that are acting in our own bodies. We do not get well by putting something into or on to our bodies. Sometimes these vital forces are working at a disadvantage. If there are poisons in the body, as an infection, or anything that interferes with the cause of life, of course the patient can not get well so readily; they hinder these vital processes, they form an obstacle to the working of the machinery of the body. The important thing for the physician and

the nurse and the individual himself to do is to get the debris and the obstruction out of the way; to clear the way, so that the forces that are in our bodies can operate to advantage.

There are two things, then, that the physician and the nurse and the patient himself may do: one is to clear the way, to take these obstructions out of the way, to get rid of the poisons that are in the body, so that these forces can operate to advantage; and another is to stimulate the body in such a way as to call these forces into the greatest possible activity. The vital forces in our bodies may become somewhat dormant; they need to be called into action, and the physician can do that by applying certain forms of what we call physiological stimulation. So there are these two important principles in the curing or healing of any disease, and in maintaining health.

To-night I want to consider some of the agencies which do one or the other of these two things, or perhaps both of them, and these we call natural remedies, because they operate in harmony with the natural forces and in a natural way. And the first thing that I wish to mention is *rest*. The most perfect form of rest is sound, natural sleep. During sound sleep there are very important things taking place in our bodies. While we are sleeping, there is a building-up process going on in the body. Oxygen is taken into the lungs, and is stored up in the body in the different tissues, and there is what we call a synthetical process; and this is why the nerve-cells grow larger while we are sleeping. This building-up process that occurs during rest is very important, and that is why it is so necessary that we have a proper amount of sleep.

Sleep, then, is the best form of rest; but sometimes an individual can not sleep on account of some nervous trouble. Perhaps he gets to worrying because he can not sleep, and thinks something terrible is going to happen because he can not get to sleep. This anxiety is really not necessary; for one can get along with a small amount of sleep without doing any great harm; though of course it is very desirable that we have the proper amount of sleep. So while sleep is important, if one does not sleep more than two or three hours each night, it does not mean that he is seriously ill or in a dangerous condition, for if one lies down without sleep he is resting, or if he is sitting he is resting. He may be resting to a certain extent if he is standing. There are many degrees of rest, and of exercise and activity. We can apply this principle of rest in the treatment of disease in a very helpful way.

Rest should include both mental and physical rest, at least in many cases, depending, of course, upon what the past history of the patient has been. A man who has been engaged actively in a professional life needs mental rest as well as bodily rest. Perhaps he does not need bodily rest at all; possibly he needs to get out into the fields and out into the woods, and take physical exercise, but to give his mind rest.

I am not going to take the time to-night to describe fully all the details of the treatment of nervous prostration or hysteria, or any other disease; I am simply aiming to

bring out some principles. Before leaving this subject there is one point I want to emphasize. Those who come here to the Sanitarium come for rest and change, and to build up their health; and I observe that those who enter into the program as marked out for them in a conscientious way, and follow it up carefully day after day, are the ones who get the most out of it. I know it is very easy for some to say, "I can walk at home, and I can lie down at home; I can do this at home as well as I can here." But that does not answer the demand, exactly. You are here for a purpose, and the thing to do is to get all you can out of what is being done for you; and I have observed in many cases that the individuals who follow everything up carefully are the ones who get well.

I will next speak of exercise. Exercise, of course, is just opposite to rest. We have various degrees of exercise, as we have various degrees of rest. Coming to the Sanitarium, most of you had your strength test taken, and a chart made out to tell you whether your strength is up to normal or below normal. You found some muscles that are weak, and those muscles are the ones that you should develop and make stronger by exercise. And you have an exercise prescription made out according to your needs. Let us notice briefly what exercise does for the body. First of all, it increases the rate and the force of the heart-beat. By increasing the force of the heart, and also increasing its rate, the circulation of the blood is also increased, and the blood is brought from the internal organs to the surface.

Now, a great many people with chronic disorders have congestion of the internal organs; there is a tendency for the blood to remain in the internal organs, and particularly so if the abdominal muscles are weak. Exercise will get the blood out into the skin,

and into the muscles and away from the internal organs. Exercise brings the food material to the tissues, carries the blood from the stomach and the liver out into the muscles and to the brain, brings the fresh blood into the tissues and takes the old blood away, takes away the waste from the body, carries it to the kidneys and to the skin so that it can be eliminated.

One of the most valuable things for a person who has autointoxication is to take plenty of exercise. It excites the movement of poisons to the lungs, where they are eliminated; and oxidation or the burning-up process is increased.

But we have to have energy to exercise, and energy comes from the food that we eat; and in order to get that energy out of the food, it must be united chemically with oxygen, and that oxygen we take into our body through our lungs; and carbon and other material from the stomach meet in the tissues, and when they meet, energy is liberated; and that is where we get our energy to keep the body warm, to do our various duties, to take physical exercise, etc. When we have poisons in our body, we need to take in all the oxygen we can, to burn up the poisons and get rid of them. That is why it is a good plan to sleep outdoors, where oxygen is most abundant.

Then, exercise increases the appetite, and it also increases the secretion of gastric juice, when it is not taken too excessively. Exercise increases the functions of the bowels, relieves constipation, increases the activity of the kidneys, increases the activity of the skin, gets the blood out of the internal organs, as I have said, and improves the condition of the brain. In order for these organs to do good work, we must keep circulating through them good, fresh, healthy, properly oxygenated blood.

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Among other special advantages offered are laboratory instruction in bacteriology and chemistry, the use of the microscope, urinary analysis, practical course in cookery and dietetics, medical gymnastics, swimming, anthropometry and open air methods.

Applicants received whenever vacancies. The next class will be organized the first of April, 1910. For full information address

Sanitarium,

Battle Creek, Mich.

The discussion of other natural agencies for the healing of disease we shall have to leave to another time. I have spoken of rest and exercise because they are often neglected and their vital importance is not always understood as it should be.

QUESTION BOX DEPARTMENT

EACH Monday evening Dr. Kellogg conducts a Question Box talk in the Sanitarium parlor, where all guests and patients are at liberty to submit questions relating to health and health topics.

Q. How long would it take to digest a breakfast of zwieback, prune marmalade, and one glass of grape-juice?

A. That depends upon your stomach, how much digestive power you have. Such a breakfast ought to be digested in two or three hours by a healthy stomach.

Q. Is it good to eat any kind of fruit and vegetables at the same meal?

A. If you chew everything thoroughly until it becomes liquid in the mouth, I think the combination does not make so very much difference.

Q. What is the difference between meat autointoxication and autointoxication from other foods?

A. Very little difference. An excess of protein produces autointoxication, whether from meat or any other source. Meat and eggs are more likely to produce autointoxication, because they agree with germs, and so produce putrefaction, which causes autointoxication.

Q. What diet would you advise to reduce fat?

A. Any diet you want. You may have anything you like, but eat just one thing. To confine the person to one thing is one of the very best means of curing obesity. At the first meal he will eat a lot; the next meal not so much; the next meal not quite so much; and before three days are gone, he will take but just a very little of that one thing, and will have had enough. The important thing in obesity is to lessen the intake of food. If the intake is equal to the outgo, you can not lose in flesh. The only way for the obese man to get thin is for him to consume a part of his fat. He must dine off himself in order that his weight be reduced. Our bodies are being continually consumed. Perhaps a man wants to reduce his weight one hundred pounds, which will contain somewhere about 80,000 calories. In order to get rid of that 80,000 calories, we must take something off his bill of fare every day; so we will put him on a menu for 1,000 calories instead of 2,000; thus we will subtract 1,000 from the 80,000 every day. He has to get the eighty thousand calories somewhere, and if he doesn't get it off the table, he will take it off himself. Wherever the accumulation is excessive, his system will find

it and consume it, and in eighty days he would reduce one hundred pounds. We generally combine these methods of dieting with baths, for by baths also we can increase the man's consumption of fat. Hot baths, cold baths, work, and starvation, all consume fat.

ARRIVALS

FOLLOWING is the list of arrivals at the Battle Creek Sanitarium for the week ending March 27: Mrs. A. Huber, City; Alvie Gusler, Mich.; Chas. G. Stevens, Chicago; Mrs. Jno. Booth, Iowa; Mrs. Jno. R. Walds, Detroit; Mrs. C. A. Stribley, O.; F. M. Johnson, Boston; C. F. Moore and wife, Mich.; E. J. Jackson, South America; Mrs. Chas. S. Partridge, Chicago; Benj. T. Asgoul, Minn.; M. K. Beyer, Mich.; F. E. Mayall, N. Dak.; R. T. Wyche, New York City; Mrs. J. H. Barker, Ind.; Mrs. J. C. Carlisle, Mo.; Miss Mary Wiethaler, Ind.; A. H. Richardson, Iowa; Geo. W. Kessler, Mich.; Mr. and Mrs. Geo. E. Stevens, N. H.; Wm. F. Smith and John Smith, O.; Mrs. H. T. Myers, Chicago; Rev. R. Malmin, Ia.; James Pryor, Mich.; Edw. Hope, Wis.; C. S. Freed, Tenn.; H. Simonson, Ill.; Mrs. A. E. Killean, Mrs. E. W. Wise, O.; C. L. Gelham and wife, La.; L. S. Marshall and Will W. Pope, Okla.; Mrs. H. A. Preston, City; H. C. Shannon, Pa.; F. M. Hubbard and M. F. Helms, Ga.; F. B. Darby, N. Y.; R. E. Hancock, O.; F. V. Balch, Mich.; C. W. Sherritt, Ind.; Miss Mason and Florence Mason, Ont.; W. L. Goodkind and wife, Minn.; Mrs. L. R. Martin, Minn.; Mrs. F. D. Harsh and daughter, Ia.; Mrs. E. Brady, Ind.; Myron Bunnell, Minn.; Roland P. Cutler, Mass.; Wm. A. Wagener, New York City; Leonard Stone and wife, Utah; Miles Bunnell, Minn.; G. R. Buck and wife, Mich.; W. E. Webb, O.; Chas. W. Hopkinson and daughter, O.; Philip King, Cincinnati; Margaret and Katherine O'Flaherty, O.; R. C. Remiue, Chicago; W. O. Johnson, Los Angeles; C. B. Harver, O.; B. R. Leffler, O.; H. A. Miller and F. H. Foster, Mich.; David Paulson, Ill.; Mrs. E. F. Gordon, Ill.; Mrs. Jerome Chapin, City; Mrs. G. M. Ferguson and child, O.; Mrs. R. E. Skeel and Miss E. M. Skeel, O.; Mrs. Rachael Straus, Cincinnati; Mrs. G. J. Billing, Detroit; W. J. Hermann, Cincinnati; Mrs. Julia F. Wilkam and Jas. F.

Wilkam, Wis.; C. H. Partridge, Chicago; G. W. Abbot and Gladys Abbot, S. Dak.; L. T. Van Cleave, Ind.; E. G. Lancaster, Mich.; S. G. Kilarta, Chicago; J. M. Barker, J. A. Ockerson, Mo.; Catherine Barker, Detroit; Sarah Currie, New York City; Mrs. J. J. Freeman and son, Mich.; A. F. Huber, Minneapolis; J. R. Waldo, Detroit; Mrs. L. R. Martin, Duluth; H. T. Myers and E. S. Beckwith, Chicago; Gyda Bates, Ia.; Chas. T. Shepard, New York City; Geo. M. Smith, Boston; Geo. J. Billing, Detroit; Viola F. Stuckey, O.; Minnie M. Van Pelt, Colo.; J. E. Enders, W. G. Newland and H. Newland, Mich.; Mr. and Mrs. C. L. Copening, City; Miss L. Copening, N. C.; C. P. Sayles, Mich.; W. J. Van Patten, Vt.; W. D. Smith, Jr., Mich.; Geo. E. Ranney, Mich.; Milir Bunnell and wife, Duluth; O. H. Sorge, Jr., Mich.; Wm. L. Lickman, Ill.; H. H. Albert, Ind.

News and Personals

Mr. Philip Krug, of Cincinnati, an old friend of the Sanitarium, is again with us.

Chas. W. Hopkinson and daughter, of Cleveland, are visiting Mrs. Hopkinson, who is a patient in the institution.

Mrs. R. E. Skeel, of Cleveland, Ohio, accompanied by her daughter, Miss E. M. Skeel, are among the recent arrivals.

Mr. and Mrs. W. L. Goodkind, of St. Paul, Minn., former patients in the institution, are again with us taking rest and treatment.

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The One-Year Course, intended especially for Matrons and Housekeepers or for those who desire it for its educational value, includes General Cookery, Invalid Cookery, Institutional Cookery and Practice Cookery, Anatomy and Physiology, Household Chemistry, Home Nursing, Household Microscopy, Household Economics and Architecture, Sewing, Medical Dietetics, Theory, Table Service, Physical Culture, etc.

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ONE SPECIAL FEATURE of this school is that students are given an opportunity to meet a large part of their expenses by work along lines which aid them in their studies.

**The Battle Creek Sanitarium School
of Health and Household Economics**

**BATTLE CREEK
MICHIGAN**

Original from

Miss Justine Wade, one of the instructors in the Physical Culture School, has gone to her home in Pennsylvania to spend her vacation.

Miss Loree Arthur, of the Sanitarium helpers' family, has gone to her home in Camden, S. C., to visit old friends and relatives. She was accompanied by her sister, Miss Leslie Arthur.

Miss Viola Stuckey, of Lyndon, Ohio, has returned to the Sanitarium for further rest and treatment, bringing with her Miss Minnie M. Van Pelt, of Colorado Springs, who will remain with us as a patient.

Dr. Elizabeth Kerr Harris, who has been in California for two months visiting her mother and sister, returned to the Sanitarium on Monday evening of this week, and will at once resume her work on the medical staff.

The new class of nurses which starts in for a three-year course the first of April is rapidly taking shape. Quite a large number of our workers who have been taking preparatory studies are entering this class, which promises to form an intelligent and interesting body of young people.

Dr. and Mrs. J. H. Kellogg and party arrived home on the 29th instant from Porto Rico, where they have been stopping since early in February. They all seem to have

benefited by their journey and visit, and return in excellent health and vigor. Doctor Kellogg took this opportunity to do some important writing.

Easter services were held in the Sanitarium chapel last Sabbath morning. The chapel was most beautifully decorated with flowers, a work of real art by Mr. A. L. Noyd, in charge of the greenhouses. The music was under the direction of Mr. Drever and was of a very excellent class. Dr. David Paulson, of Hinsdale, Ill., delivered an address appropriate to the occasion, and showed the importance of living the new life created in the hearts of true Christians by the resurrection of Jesus Christ.

The missionary rally held in East Hall parlor on the afternoon of the 27th inst. was of unusual interest. Mr. B. G. Stephenson rendered a very fine solo. The meeting was led by Mr. Archibald Orbison, who introduced the speaker, Dr. Jessie W. Lawrence, who gave a most interesting address on "Changes Occurring in Persia."

Several students of the American Medical Missionary College, took part in the Young People's meeting at the Baptist church on Sunday evening, the 27th inst. The meeting was missionary in character and was led by Miss Addie Stanford, who spoke of the reasons that had led her to decide to become a medical missionary; and similar testimonies were given by about fifteen of the students

of the college. The meeting was well attended and decidedly interesting.

Rev. R. A. Burris, of Port Arthur, Ont., has been a guest at the Sanitarium for the last three or four weeks. Some years ago this gentleman conceived the idea of forming colonies on the north shore of Lake Superior for the benefit of poor men in the United States, obtaining a grant of twenty thousand acres of timber land for that purpose, and without means or assistance succeeded in locating a large number of families sufficient to occupy the entire grant. Obtaining similar grants from time to time, he has continued this work until over three hundred thousand acres have been occupied, and two thousand families have passed through his hands from poverty to homes of their own, where they are developing the country and at the same time procuring substantial homes for themselves. The history of this work is exceedingly interesting, and the blessings which have come to many struggling families located in different parts of the United States are indeed remarkable. Mr. Burris has greatly interested the Sanitarium family in the recital of his experience and the description of his work.

THE NEXT TIME

You desire to go to Detroit, use the solid vestibuled train leaving Battle Creek 3:50 P. M. via the Grand Trunk Railway System. No change of cars. 3-24-31, 4-7

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Three weeks ago was the first time any effort was made to place

The Ideal Scrap File

on the market by advertising, and results have been so gratifying and everyone is so well pleased with them that for 15 days, beginning April 1st, we will send to any one sending us 18c in stamps, ten of the files. The regular price of these files is 35 cts. a dozen, and this reduction means a big cut into our profits, but we are willing to make it in order to introduce them more thoroughly.

Even at this rate you will not be required to keep them. If for any reason you wish to send them back, we will return to you the full 18 cts., plus the necessary postage for return mail. Could anything be more fair than this?

But this is not all. Those taking advantage of this offer will be given further opportunity to secure additional files at greatly reduced prices.

You take no chance. You will not be out a cent and only two minutes' time. Cut out the accompanying order, sign your name, enclose 18 cts. in stamps and mail at once to

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THE BATTLE CREEK IDEA

Vol. III No. 18

BATTLE CREEK, MICH., APRIL 8, 1910

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The Introductory Program—How Everybody is Made to Feel at Home

MANY people unaccustomed to absence from home, and of a more or less timid disposition come to the Sanitarium for treatment; and no doubt many are detained from coming who ought to come, by the thought of the strangeness of the place, and certain misgivings as to what the new conditions may be,

AN INTERESTING PERSONAL EXPERIENCE

Related by Hon. Goodwin Brown, an Eminent Lawyer, Prominent in New York Public Affairs

I CAME here to see this Sanitarium. I had heard so much about the work of this institution that I have been looking forward for more than a year to seeing it. I was quite anxious, in fact, to see Doctor Kellogg face to face and have a talk with him.

I think it was about four years ago that,

CHRISTIAN SCIENCE ONLY SO IN NAME

Doctor Kellogg Examines the Claims of the Cult to be Regarded as a Science

CHRISTIAN SCIENCE is my subject, and I brought along for my text-book, Mrs. Mary Baker Eddy's book, "Science of Health, with a Key to the Scriptures." Now I am not going to affirm that there is nothing good in Christian Science, but I trust I shall be able to show you that whatever there is good in



THE BATTLE CREEK SANITARIUM

Main Bldg. 560 ft. long, six stories high. Rear extensions, on the left, men's treatment rooms; on the right, women's treatment rooms. In the middle, the gymnasium. Buildings in the rear, East Hall, laundry, heating plant and conservatories. Large building to the left, the Food Factory.

and the experiences they may be called upon to pass through after reaching the institution.

In the first place, none need hesitate to come on account of the largeness of the place, for the same kind of people are always found in big houses as in small ones. The size of a building is no indication of the nature of the folks to be found inside. Genial and courteous people are just as likely to be found in a great house as in a small one. In the Sanitarium, though it is large in proportion

(Continued on page three)

quite by accident, I saw a magazine article by Professor Chittenden. It is altogether likely I should not have paid any attention to the subject, but many years before, while I happened to be a public officer, I had occasion to utilize the work of Professor Atwater, and before him of Prof. Austin Flint, of New York, said at that time to be the most distinguished physiologist in the country. I became very well acquainted with Professor Atwater, and learned much about foods; but it never occurred to me that

(Continued on page five)

it is not new, and that that which is new in Christian Science is not good.

In the first place, I shall say that Christian Science is neither science nor Christian. It has no claim to be called scientific; it has no claim to be called Christian. It can not claim to be called scientific because it opposes all science, it would destroy the very foundations of science.

FUNDAMENTALS OF SCIENCE ARE DENIED

It declares, to begin with, that the very things which science deals with, do not exist. How could we have such a thing as science

if there were no matter? Now this theory is not new. The theory that there is no real, tangible existence, that the only existence is an intangible idea or thought, is not a new one. Bishop Berkeley brought it forward long ago. To be sure, when we undertake to prove our own existence, it is pretty hard to substantiate it. How do we know that we exist? How do I know this is my hand? I look at it, I say that is a hand; but how do I know it is a hand? There is nothing but a picture in my eye or my brain. I might affirm I had three hands, but that would not make it so. The only thing about this hand is that I have an impression that I feel and see it; but I may be deceived about it. We

Science can get out of it, because he simply becomes imbedded in a quagmire of irrational thought.

Lord Byron, by the way, was once asked what he thought of Berkeleyism, and he replied in a rhyme:

"When Bishop Berkeley said there is no matter,
'Twas no matter what he said."

And I think that was a very good answer. If what he said were really true, then what he said did not exist either. Mrs. Eddy finds herself in that very situation. She says there is no matter. Then there is no Mrs. Eddy. She says there is no matter; consequently, what she says is no matter.

This theory is absolutely unscientific, and

sin, pain, misery, distress, sorrow, crime, etc., are all evil things; but since God is good and created all things good, and a good God could create no evil things, then these evil things do not exist; disease does not exist, sin does not exist, crime, pain and sorrow do not exist. No Christian Scientist will deny that this is the fundamental claim, the foundation on which Mrs. Eddy builds. That looks like straight reasoning at first glance, but it is not. God is good; God created all things; a good God could create no evil thing; that is all true. Disease is an evil thing. That is right. But Mrs. Eddy says disease is not a thing at all; that sin is not a thing, and pain is not a thing, because God did not create them. When we say God created all things, the word *thing* is used in a restricted sense, as relating to a visible object. An object is a thing. God created all objects. God created all things; but when God created all objects, he did not create the relations of all objects. So God created all objects in the beginning; then living beings were left to create relations, and to make use of things. Man himself was made to be a creator. Some one has said, "God made the country; man made the town." That is perfectly true. God never built a house. Men build houses. God makes men; and he makes timber, stones, iron, etc. Man takes these objects and builds a house of them.

GOD DID NOT CREATE EVERYTHING

So while it is true that God created all objects in the beginning, it is not true to say God created all things which exist to-day or to say that God created all relations of all things. There are some things God can do, and some things he can not do. The omnipotent God is limited by infinite consistency, infinite truth, infinite mercy, infinite honesty. The infinite Being is limited by his infinity, so that while he is the one great Power in the universe, he is also the most limited of all beings in the universe. Man can do wrong in a thousand ways. God can not do any of these things. So, to say that God created all things is true only when we go back to the beginning. Now, when the Christian Scientist lays that down as a premise, then draws from that the conclusion that God could not create anything evil, and hence there is no such thing as disease, he simply lays a foundation on nothing. The fundamental error is in the reasoning in relation to the use of the word *thing*. And that is where he begins to go wrong, and it is wrong from that point on.

The fallacy is in the first premise that God created all things, which is true in one sense, but not true in another sense. While God made all objects at the beginning, he did not make all things that exist upon the earth now; he did not make all relations of all things, and he did not create all the qualities of all things. There are things which grow out of voluntary human action. Disease, pain, suffering, and distress are not things which God is making, but they are things which have come from wrong application of the things which he made, and the establishment of wrong relations of good things. God created food for man to eat, and he established the proper relationship between man and food; but when man goes to excess and



RECEIVING OFFICE

sometimes are deceived by our sensations. We can not prove that the thing really does exist. We can not prove even our own existence.

So Bishop Berkeley says that nothing exists but an idea or a group of ideas.

MATTER IS NOTHING BUT A FANCY, an imagination, a picture. A young man who became interested in Berkeleyism once went to a teacher and said, "Did you ever get into Berkeleyism?" "Yes." "How did you get out of it?" "I jumped out of it." So Christian Science is an entanglement that by sophistry weaves a net about people and it seems difficult to extract one's self from it when one gets into it. The professor said he jumped out of it; and that is the only way the average man who gets into Christian

therefore untrue, because it starts out with demolishing the very foundations of science by declaring that matter does not exist. Mrs. Eddy should call her philosophy by some other name than science, for science relates to knowledge concerning things, knowledge concerning the material existence. Her philosophy, so called, is a curious conglomeration of effete things—various things mixed together without any systematic relation, a hodge-podge of things thrown together.

FOUNDATION OF THE SYSTEM

Now the real foundation upon which Mrs. Eddy undertakes to build her science, as she calls it, is this: God is good. God created all things and pronounced them good. A good God could create no evil thing. Disease,

eats too much food, then there is pain, distress and disease; and that is a thing man himself has created. God has not created it.

I think that any rational and intelligent person must acknowledge this to be right.

MRS. EDDY'S THEORY

is that disease, and sin and pain and distress, and all the miseries of the world are simply morbid ideas, wrong conceptions; as she says here in this book: "Disease is simply an hallucination of mortal mind." Again: "Disease is an impression originating in the unconscious mortal mind and becoming at length a conscious belief that the body or matter suffers. This delusion is like the dream of sleep." I am sure some of you wish it might be so. Note the next sentence, given as a logical sequence: "This goes to show that all suffering and disease are forms of thought." What shows that? Simply her assertion. "Disease is an impression originating in the unconscious mortal mind, becoming at length a conscious belief that the body or matter suffers. This goes to show that all suffering and disease are forms of thought." So sentence after sentence is strung together through the whole book, without the slightest relation of cause and effect, or premises and conclusion,—simply a collection of assertions. "Science is at war"—that is, Christian Science is at war—"with physics," the author says. How can it claim to be a science, then, when it is at war with physics, which is one of the fundamental sciences? "When there were fewer doctors and less thought was given to sanitary subjects, there were better constitutions and less disease. Delusion is all that ever enabled a drug to cure the ailments of a man."

I know of a case in which a whole family was suffering from a parasitic malady, in which a certain little parasite, known in common terms as the itch mite, burrows under the skin. They were thorough believers in Christian Science, so they proceeded to get cured of it by that means. But the malady spread until the whole family had it, and the eruptions and the terrible itching and distress were so beyond endurance that they were finally compelled to surrender and get a little sulphur ointment, and this morbid idea disappeared. Of course, all this suffering, and the itch mite itself, were simply an idea, but Christian Science did not cure it. I am willing to offer a thousand dollars for every itch mite Christian Science will kill. It can not be scared away by Christian Science. The cockroaches infesting the kitchen are simply morbid ideas that have broken loose; apply the philosophy of Mrs. Eddy, and clear all these pests away in short order, if this be true.

DISEASE AN HALLUCINATION

"Delusion is all that ever enabled a drug to cure the ailments of man." And here is another statement of the same thing, found on page 186 of Mrs. Eddy's book, "All disease is the result of hallucination and can carry its ill effects no further than mortal mind maps out. Facts are stubborn things." So they are; but is that a fact? Mrs. Eddy's assertion does not make a fact of it. "Christian Science finds the decided type of acute disease, however severe, quite as ready

to yield as the less distinct type and chronic form of disease. Christian Science handles the most malignant contagion,"—that means smallpox and diphtheria—"with perfect assurance." There is no doubt about the assurance, but the success is quite another thing.

Here is a specimen of Christian Science assurance and presumption. See the danger that is involved in it! Disease does not exist; hence smallpox does not exist. Abolish the pest-house, abolish all quarantine, allow the plague to come in and spread all over the country as freely as it will. There is no such thing as disease; there is no such thing as plague; there is no possibility of any one becoming infected,—"Christian Science handles the most malignant contagion with perfect assurance." It is the assurance that comes from consummate ignorance, and could have no other possible foundation.

MRS. EDDY'S CLAIMS

I have had abundant opportunity to observe what happens in cases of organic diseases when they are treated by these healers.



MAIN PARLOR FIREPLACE

First, I want to show you what they claim. Mrs. Eddy says, "I have cured what is termed organic disease as readily as purely functional disease. By mind alone I have healed diseased bones, I have caused the lungs to grow." Mrs. Eddy asserts that the so-called laws of matter which are the foundation of true science are nothing but a false belief. If Mrs. Eddy's views were adopted, what would become of the sciences? Every one of them would disappear, because the laws of matter are nothing but false belief. Mrs. Eddy annihilates physiology altogether. She says there is "no more sympathy between physiology and Christianity than there is between Christ and the devil." "To reduce inflammation, to dissolve a tumor or to cure organic disease, I have found mind more potent than all other remedies. One disease is no more real than another. All disease is the result of hallucination and can carry its ill effects no farther than mortal mind maps out."

Mrs. Eddy has propounded a doctrine here which, if it were literally followed out, would abolish all our colleges, because they are all based on false belief; it would abolish all our electric lights and our trolley cars and our telegraph system, and everything that is

the product of modern scientific discovery, because she says that this is all false belief; there is no such thing as electricity; there is no such thing as gravitation; the laws of mechanics are all absurd; we have no foundation whatever for any science. Astronomy and discoveries of all sorts must be abolished, because they are all based upon false belief. So, as I said before, Christian Science has no just claim to the name of science; there is no orderly march of thought in this so-called system. It is a vague mixture of assertions, fancies, and fantastic hypotheses, with a small admixture of fact. As a working theory it succeeds by the same methods and in the same way in which the clairvoyant, the magnetic healer, the medical placebo, the fakir of the East Indies, the fetich of the African savage, and the pow-wow of the Pennsylvania Dutch succeed. The cures of Christian Science, so far as real cures are effected, are examples of the influence of mind upon the body, not, however, of the mind of the Christian Science healer upon the body of the patient, but of the patient's own mind upon his own body.

RECERTION OF GUESTS

(Continued from page one)

tions, and its family always numbers several hundreds, still, complete arrangements are made for the personal care and attention that is required by every newly arrived guest.

Here comes, we will say, a lady from a distant part of the country. She is not much accustomed to travel and is strongly attached to her home, she has a dread of meeting strangers, and is full of misgivings as to what she is really coming to. She is doubtful about the place in general, having to depend entirely upon what has been told her about it, or perhaps upon a brief correspondence. She is naturally timid and retiring, and the undertaking is one of the hardest she has ever been made to face.

Of course her friends accompany her to the train and see that she is ticketed for Battle Creek. There are two magnificent railways running through the city, the Michigan Central and the Grand Trunk, either one of which will land the lady in the city in the most comfortable manner known to modern travel. At the station the Sanitarium por-

(Continued on page four)

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THE STRONGHOLDS OF CHRISTIAN SCIENCE

We present this week some cogent statements made by Dr. J. H. Kellogg in a parlor lecture at the Sanitarium in regard to the delusions of the so-called system of "Christian Science," which in reality is directly anti-Christian and anti-scientific. And yet there are very few enterprises of recent origin that have made the progress that has been made by this cult. And its advancement has not been confined to converts amongst the ignorant and unlettered classes, but many devout and thoughtful people have been led to identify themselves with the cause from different considerations. Prominent among these causes is the fact that the idea of divine healing is associated with it. Its work is supposed to be one of faith, and the terms, "divine healing" and "faith cure" are frequently used in referring to the work of the Christian Scientists. These are misnomers, for in the teachings of the "Christian Scientists" there is no appeal to faith, and no special recognition of divine power or interference. It is simply a denial of the facts of physical existence, an attempt to ignore the real conditions of life, and by a supreme effort of the will to banish from the mind all recognition of illness and suffering.

Yet the nominal association of divine power and interference is attractive to the minds of devout people, many of whom believe in the great truth that the healing of sickness is a work of superhuman power and may be invoked through faith. And "Christian Science" pretends to give an opportunity for the exercise of that kind of faith.

Another strong hold that the claims of this cult has upon the average mind is in the fact that the body is in many ways subject to the operations of the mind. The mental state exerts a powerful effect upon the conditions of the body. A person may force himself into a serious illness solely by his mental impressions. Many an invalid is such solely and only as the result of an active imagination. A timid person alone in a house at night can easily fill that house with burglars. He can hear them climbing into the windows,

and slipping over carpets, and prying open drawers; and it is all a reality. So a nervous person with an active imagination can fill his body with numerous ills that have no existence except in the imagination. "Christian Science" affords a ready cure for such cases; and thousands there are who require just such treatment. They need to have the devil of disease exorcised from their minds.

Not only this, but actual disease may often be overcome by a positive determination of the will. The effect of the mind upon health is potent and should not be neglected; and the "Christian Scientist" simply avails himself of these conditions as a basis for his practice, and upon the basis of these facts constructs a monstrous system of error which is of itself subversive of the principles of science and Christianity.

CAMPAIGN AGAINST THE GREAT WHITE PLAGUE

THROUGH the efforts that have been put forth under the direction of intelligent medical guidance the tide of battle against the terrible enemy of human life, tuberculosis, is already turned in favor of the human family. So closely have the symptoms and methods of the disease been studied that its extinction has become simply a question of careful vigilance. Eternal vigilance is the price of life itself as well as of liberty. To keep one's self out of the reach of this terrible plague is the first consideration. Tuberculosis is not inherited, but the weakness of constitution that predisposes to the disease, that lays one liable to its attacks, may be a matter of inheritance. But such inherent weakness is not necessarily attached to the inheritor by a bond that can not be broken. Right living under right conditions can and will remove such congenital weakness and give one the power to resist the disease.

This has been proven by very many people who, born of parents who died of consumption, have developed stalwart health and strength by careful adherence to right ways of living. It is not necessary, though it is quite possible, for an individual to condemn himself to die of tuberculosis simply because his father or mother died of it. Persons who are in the vigorous age are the ones most generally attacked by this disease, and they are the ones who may and should place themselves on a grade of living that is absolutely out of the reach of the agents of this scourge. These agents are all about us and always in our system, seeking to obtain a foothold, but so long as our vital status is well sustained we shall be able to keep them outside of our vital domain.

The habits of life should be carefully considered; good food properly eaten, fresh air in abundance, the avoidance of nostrums, with personal cleanliness, are the great barriers against tuberculosis, and these are so easily within the reach of all that it seems a pity that every person should not be thoroughly and strongly fortified against it.

RECEPTION OF GUESTS

(Continued from page three)

ters await the train; they are in uniform and call for passengers for the Sanitarium. These men are chosen for their special adaptability to this work. They are strong physically and will care for passenger and luggage. They are able and willing to carry the lady to the carriage in waiting, if necessary, and they are gentle and kind, intelligent and affable. Very soon our lady is in the comfortable carriage on her way through pleasant streets up to the higher ground upon which the Sanitarium is located, overlooking the beautiful town of thirty thousand inhabitants.

There is always a feeling of pleasant surprise experienced as one approaches the institution for the first time. Our lady catches glimpses of the massive building and a feeling of comfort and security at once comes over her. Landing at the main entrance, the porter leads her to the lobby and the desk, where her name is registered and her room assigned, to which she is conducted and her baggage promptly delivered. The lady is shown to the dining-room and introduced to the matron, who assigns her a seat at one of the tables, that is reserved for her during her stay.

Her arrival is announced to the medical office and very soon the medical matron waits on her at her room and assigns to her some light treatments of a restful and quieting nature and arranges an appointment to see her, leaving her to rest. After breakfast the lady is called to the medical office, where the receiving physician makes a rather cursory examination of her history, and the nature of her troubles, and assigns her to her permanent doctor,—very likely one of the lady physicians,—who receives our lady in her office and enters upon a thorough investigation of the case.

Some temporary treatment is ordered for the first day or so until the physician can receive reports from the various laboratories on the case. These reports give to the physician a knowledge that could not be obtained by simply learning the symptoms; and before the patient has been in the institution twenty-four hours she feels that she has found numerous friends; that she is in the hands of those who take a real interest in her welfare; she observes the homelike air pervading the place; she is met with universal courtesy and kindness, and the feeling of strangeness very soon passes away.

In two or three days she becomes entirely acquainted with the program and each day is filled with more or less active duties, so that there is no time for repining or homesickness. Very shortly returning health and strength show that the treatments are taking effect, and with the prospects of being re-

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stored to health, cheerfulness and contentment take possession of the mind.

Next week we will speak more particularly of the various examinations employed in the diagnosis of disease. It has been the aim of this article simply to outline the usual experience of a person coming to the Sanitarium for the first time.

It is always best, where it is at all practicable, to have previous correspondence, by which there will be a perfect understanding as to rates and conditions and also to give opportunity to make preparations for the ready reception of the newcomer.

Every measure is taken to give to strangers a cordial and comfortable welcome, so that from the first the impressions may be pleasant and favorable to speedy recovery and happy results. To the great mass of sick people who come to us, the Sanitarium becomes a place of agreeable and pleasant associations, a spot dear to the memory, to which one can always look back with kindly recollections on account of the benefits received.

AN INTERESTING EXPERIENCE

(Continued from page one)

it was worth while to apply it to myself. I simply was looking out for the vast numbers of the insane of the State. But I was brought into touch with scientific work, and I should say here, perhaps, that I took part in establishing what was probably

THE FIRST REALLY SCIENTIFIC INSTITUTE of research in this country, which antedated the Rockefeller Institute, and the Carnegie Institute also.

When my associates and myself took charge of the insane for the State in 1890, when we consolidated all the charities of the

State and brought them under one system, it became necessary for the first time to consider the proposition as a financial one, and one of the first questions that arose was how much food the insane should have. We were responsible for the amount of food allowed, and we were responsible also to the Legislature for the money expended. If we arbitrarily reduced the diet, there was a chance for some one to say that we were ignorant and had cut it down too much; and on the other hand, if we raised it, they might say we knew nothing about the subject, and had allowed too much.

So we employed Dr. Austin Flint, and afterwards Professor Atwater. As we went on, our work broadened in scope until we came to medical matters; and by and by we said, "If there is any way by which a larger number of these insane can be restored than are being restored, let us find it out." And we agreed among ourselves that we would establish an institution for scientific research. And to that end we went to the Academy of Medicine in New York and asked them for suggestions. We promised to appoint any man that they suggested to lead this institute. That institute was established and the work begun; and we spent what might be considered a fortune in providing it with scientific instruments; and we felt that even if nothing was ever discovered, at least it could be said that the subject had had the benefit of the ablest scientific minds that could be found.

In the course of time we began to apply the investigative methods to the subject of diet, so that in a way I had some preliminary preparation for what was afterwards to be applied to myself. You know we are very apt to try to reform everybody else before we begin with ourselves.

But there came a time when I felt that

A REFORM "WITHIN THE PARTY"

should be undertaken; and when I saw that article by Professor Chittenden it made such a profound impression upon me, knowing his standing as a physiological chemist, I at once decided to give the matter careful attention. At that time, I was fifty-three years of age, and weighed 190 pounds. I reduced my ration and began rapidly to lose flesh. People thought I was going into premature decline. Substantially I was played out. Shortly afterwards I learned about Mr. Horace Fletcher, and I began with great energy to apply to my own case the theories of both. After a little I went to New Haven and had a talk with Professor Chittenden about it. I confess I was really alarmed, and my friends were more alarmed than I was, and at no time during the experiment was I free from very careful medical observation, because I thought it was not worth while to commit suicide for the benefit of a cause. Professor Chittenden said, "Do not be alarmed; you are certainly eating enough, maybe too much." Yet I had cut my diet down at least two-thirds, having been a fairly liberal eater. I liked the habits of clubs, and looked out for good things, and it was said by some people that my cellar contained more of the rarities of the earth than many cellars in my immediate locality; but during this experiment I had shrunk.

When I was about fifty, I used to pride myself on certain

ALDERMANIC PROPORTIONS;

my clothes were well cut; I really thought I was quite good looking. You know we used to consider an alderman as the type of the elegant gentleman; but I shrank to such an extent that my friends were alarmed.

But it occurred to me to bring to my aid some of the science that I knew was floating about, and I went down to Doctor Rogers, the chief medical examiner of the New York Life Insurance Company, whom I knew very well, and he said,

"I WOULD LIKE TO TAKE YOUR BLOOD-PRESSURE,"

which he proceeded to do. Up to that time, I had known nothing about blood-pressure. As a result of that examination, he said, "You have the safest blood-pressure of any man I ever saw, and if you cared to apply for one hundred thousand dollars of insurance, I would issue it at once." Then I had an examination by my own physician. I said to him, "I shall hold you responsible in the event of my death; I shall expect you to examine me every two weeks and keep me informed of my real condition, because I desire to live." He, too, thought I looked rather shrunken; but I suddenly discovered that I had unusual energy. It was simply amazing. People with whom I walked would ask me if I were going to a fire. I was not aware that I was walking very rapidly. But the fact was I was moving about with great rapidity. That was over three years ago. I had persisted in the experiment, because I thoroughly believed this was right. It is amazing how much people will believe about electricity, about engineering, and about the railroads, and about everything in

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the whole line of human activity; yet when some scientific man of equal attainments asks us to believe something about the human body, they say, "Well, that is against all human experience, and I propose to do just exactly as I always have done."

After a time

MY SKIN BEGAN TO ADJUST ITSELF

to the new conditions. My weight went off fifty-five pounds, and I got down to one hundred and thirty-five. I sold my old clothes; had my hair trimmed, and started out on a new idea. I drank a little bit less. I never was a very hard drinker; I simply was one of those amiable men that like to take a cocktail before lunch, and something in the evening, and I liked to smoke a little. By and by people began to say, "Why, Brown, what have you been doing? What has happened to you? You are growing young!" Even my wife said the same; and I instantly said to her, "You are about the same age as I; if you want to join the procession, I should be very glad to have you. But I want to say to you with very great frankness that you will be out of my class in a very short time, unless you come into the game."

I happened to have a young son, not so very young, either—about thirty,—a corporation lawyer, who looked on this scheme with the utmost contempt. He had all the pride of modern education. He watched me, hardly able to conceal his contempt, and he said to me one day, "Father, I have been watching you pretty carefully; you are eating a great deal more than you think you are." I said, "My esteemed sir"—I was careful to address my son that way,—"Will you take a pad and

CAREFULLY NOTE DOWN WHAT I DO EAT,

and then kindly tell me if your suspicions are justified?" After three days he said he was satisfied that he was mistaken. Now that boy had asthma, a typical case, tall, thin, spare, suffering greatly from asthma; but by and by he discovered that there was some sort of relation between intestinal disturbance and asthma. In other words, he found that when he had a bad attack of intestinal disorder, that likewise he had asthma. Then he began to modify his diet, and about that time he very fortunately married a farmer's daughter, much to my surprise and gratification,—a girl of considerable education and intelligence; and she was smart enough to see the point. The consequence in regard to those two young people was that both are fully restored to health. My wife to some extent has adopted the plan; she has cut down her diet, and is reducing her weight. And she has become convinced that eating meat is not a good thing; so that we really have got down to the point where meat, or at least fish, is served about once a week, merely as a concession to public sentiment.

But I have learned something to-day; I really think the time has been well spent. I happened to ask Doctor Kellogg to-day about red meat and white meat, and I learned that of all sorts of flesh, fish was more likely to be contaminated than almost any other kind; so I think we shall cut that out.

I do not profess to be a vegetarian; but

I have found through Doctor Kellogg, Professor Chittenden, and others that there is

NO NECESSITY FOR EATING DECAYING ANIMAL FOOD,

for one can get protein in some other form just as well, and get something that is clean and wholesome. Why, when you stop to think of what it is to eat putrefying flesh in a state of arrested decomposition, it is astonishing; and yet I do not think any of us ever thought much about it. I used to look at those juicy steaks, at those hind quarters hanging up in the butcher shop, I used to haunt the markets of New York, to see what there was in the way of sweetbreads and other delicacies. I would not think of doing it to-day, not for a moment. I have scarcely eaten meat in the last month, though I do make a concession occasionally, because it is easier to take poison sometimes than it is to get up a discussion on it,—but I really think I shall cease to do that. I think there is such a thing as being too polite, and I am afraid I have been. I have at times in my life drunk more wine than was necessary in order to preserve the amenities, but I am satisfied now that this is a mistaken policy and I think I shall discontinue that. And so,

ALL THESE THINGS ARE GONE—

meat, tobacco, rum. I quite agree with Mr. McClure about the harmfulness of coffee. I spent years in inventing a coffee mill, and finally succeeded to such an extent that a New York broker was willing to buy it. I really went into that because I found it impossible to get a decent cup of coffee in the average hotel or the average house; and I said to myself, "I will invent a machine for grinding coffee that will be proof against the ordinary, unusual ignorance." But I think, from what I have learned to-day, that, too,

will have to go; and I shall sell the machine.

Now, I think you will agree that I do not look like an invalid, hardly. This is the fourth year in which this experience has been going on. About a year ago it occurred to me it would be more convenient to give up breakfast than it would the evening meal. And since then I have taken on a new lease of life. When we used to have a big family dinner and all the family got together in those olden days, and the roast was put on the table, and the dessert served, with all the concomitants, after I had eaten that family dinner, I had a strong inclination to lie right down on the floor. If people came in to call, I was impolite up to the point of rudeness; I simply ceased to talk, and by my absolute silence indicated that I wished them to go; that I wanted to get on my back; and the house was closed up. But

I SIMPLY HAVE GONE BACK TWENTY-FIVE YEARS;

I really am beginning to have a good time.

I had been in the habit all my life of regarding the breakfast as a foundation stone; and on my index in my office is a little editorial cut from the London *Lancet* to the effect, substantially, that the man who can eat a big breakfast is the man who will make his way in the world. We are all familiar with the argument, but immediately I cut out the breakfast, I found that I did not want it. And so it now happens frequently that I do not eat until I come home and eat a light supper. Why, the housekeeping is all gone to pieces in our house. There is only one meal a day served. Really, there isn't anything doing. You would be surprised. The only drawback I find is in inviting a company of people there to be entertained. Of course we can not bring all other people to our own ways of thinking. However, I have decided, for the good of the house, to let the

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Battle Creek, Mich.

companies go. We are having a pretty good time as it is. During the past four years, I have gone through tests by Doctor Anderson, and so far as could be seen, I was sound. Certainly I have five activities to-day where I had one four or five years ago. I am a very active man in the things that are important to me; and I find that I can accomplish them all, and that I have so much time that I do not know what to do with it. I am so anxious to be always doing something.

If there is anything in personal experience, the theories of Professor Chittenden, of Doctor Kellogg, of Mr. Horace Fletcher are absolutely demonstrated; because as well as I can observe, I have gone back twenty-five years so far as my health and activity are concerned.

POINTS REGARDING THE CENSUS

The census begins April 15 and must be completed in two weeks in cities and in thirty days in all other areas.

The enumerators will wear a badge inscribed "United States Census, 1910."

The law requires every adult person to furnish the prescribed information, but also provides that it shall be treated confidentially, so that no injury can come to any person from answering the questions.

The President has issued a proclamation, calling on all citizens to cooperate with the census, and assuring them that it has nothing to do with taxation, army or jury service, compulsory school attendance, regulation of immigration, or enforcement of any law, and that no one can be injured by answering the inquiries.

It is of the utmost importance that the census of population and agriculture in this State be complete and correct.

Therefore every person should promptly, accurately, and completely answer the census questions asked by the enumerators.

LIFE'S KERNEL

ARTHUR E. BATES

SUPPOSE in this life some great honor you claim,
Or perchance win renown, and thus make a great name,
And the sound of the name be ever so sweet,
Yet, friend, after all, "What's the chaff to the wheat?"

Suppose you should climb the frail ladder of fame,
And from its top round should inscribe your own name,
Then gaze on mankind as they lie at your feet,
Yet, friend, after all, "What's the chaff to the wheat?"

Suppose you should gather much silver and gold,
Till the wealth of the world in your arms you enfold,
If you, in this life, should accomplish that feat,
Yet, friend, after all, "What's the chaff to the wheat?"

The things that surround us, though cynics may laugh,
Are nothing but worthless, are naught but the chaff;
But within lies the kernel of life, pure and sweet,
The ripe, yellow corn, the rich golden wheat.

ARRIVALS

THE list of arrivals at the Battle Creek Sanitarium for the week ending April 3 is as follows: Anna Butcheler, Mich.; S. W. Emery, Pa.; Ira Tordsen, Ia.; W. K. Morley and wife, Mich.; E. H. Lay and wife, Chicago; Mr. and Mrs. A. W. Sprague and son, Ill.; A. D. Kennedy, O.; Dr. W. T. Brunnell, Wis.; Hugh Mapleton, England; C. Mylander and Helen Mylander, Neb.; F. H. Jennings, M. D., Pa.; G. W. Sykes, Pa.; Mrs. W. E. Payne, D. C. Gibbs, Mich.; L. N. Dibble, Mass.; J. O. Farleigh, Mich.; Mr. and Mrs. F. L. Durry, Mich.; Emma A. Miller, Ind.; Saidee Williams and Mary Faber, New York City; Pauline Fipp and Mrs. W. H. Lloyd, Ga.; Fred C. Aldendorf, Ind.; T. E. Adams, N. Y.; Jas. T. Brown, Brooklyn; Pearl Smith, Mr. and Mrs. F. A. Smith, Ill.; R. W. Hiett, Toledo; G. A. Glines, Canada; Mrs. W. B. Latta, New York City; John H. Grant, O.; Mrs. Mary A. Brigham and Pattie Brigham, Washington, D. C.; Mr. and Mrs. W. H. Allen, O.; Mr. and Mrs. R. L. Harrington, Mich.; Mrs. C. G. Morse, Ind.; H. P. Waywall, Detroit; Mr. and Mrs. Z. T. Griffin, N. Y.; John Bloomquist, Kans.; Theo. Hohenadel, Chicago; Mrs. Walter Brown, Ind.; Mrs. M. E. Eggleston, Mich.; C. J. Sargent, Minn.; Miss A. P. Moore, Neb.; Mr. and Mrs. Frank Husband, Pa.; Chas. M. Hartt and wife, Mass.; Mrs. L. H. Brown and Hal Brown, Tex.; A. B. Kinney, Minn.; Dr. H. C. Rees, Tenn.; Kittie Connel, Ill.; Mrs. Ch. Crum-packer, Ind.; G. H. Hyland, O.; Mrs. H. A. Rose, Pa.; Geo. W. Everhart and wife, Phila.; Louis Shlepp, N. Y.; Lewis Ulrich, John Bradley, Tex.; E. J. Roche and wife, Ind.; Mrs. R. O. Green, Robt. J. Green, Ia.; Miss Mary Grabel, Buffalo; C. D. Montrose, N. Babbitt, Detroit; J. M. Barker, Ind.; G. Sorge, Jr., Mich.; W. D. Reeves, Ark.; Mrs. M. T. Barrett and Miss Grace Barrett, O.; Kyle Arthur, Ind.; Mrs. F. Mordaunk, New York City; Ruth Hem-inway, Ill.; T. Fuller, Mich.; Louise Gyman, Mich.; G. S. Thorburn, Mich.; John H. Hubbard, Pittsburgh; Mrs. Emma Evans, Minn.; Mary Breeh and Roy Breeh, O.; W. J. Button and Geo. W. Brown, Chicago; H. M. Morvin, Me.; W. H. Stewart and Mrs. W. H. Stewart, Ill.; L. S. Jackman, Ky.; W. R. Read, N. Dak.; T. C. Daly,

Chicago; Mrs. W. H. Hines and Mrs. H. W. Mound, Ill.; N. M. Young, Minn.; Mrs. John Bromhead, E. Bromhead, Jr., and B. H. Bromhead, Ga.; T. C. Rising and wife, N. Dak.; H. L. Chapman, Ill.

News and Personals

Mrs. W. H. Lloyd, of Brighton, Ga., is a new arrival at the Sanitarium.

Mrs. L. H. Brown, of San Marcus, Texas, is a new arrival from the South.

Rev. F. H. Foster, of Olivet, Mich., pastor of the Congregationalist church, is taking much-needed rest and treatment in the institution.

Pastor Alonzo T. Jones has recently returned from an extended tour in the Eastern cities, visiting Washington, New York and Boston.

Mrs. Mary Baugham, of Washington, D. C., arrived at the Sanitarium last week. She was accompanied by her daughter, Miss Pattie Baugham.

Miss Agnes E. Baskerville, who has been stopping at the Sanitarium for the past few months, left us last week. Miss Baskerville is a missionary from India.

Among the doctors now resting at the Sanitarium we note the following: Dr. W. T. Brunnell, New London, Wis.; Dr. H. C. Rees, Murfreesboro, Tenn.; F. H. Jennings, M. D., Titusville, Pa.

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ONE SPECIAL FEATURE of this school is that students are given an opportunity to meet a large part of their expenses by work along lines which aid them in their studies.

**The Battle Creek Sanitarium School
of Health and Household Economics**

**BATTLE CREEK
MICHIGAN**

Mrs. W. H. Hines, of Kenilworth, Ill., an old friend and patient of the institution, returned last week for further rest and treatment. She was accompanied by Mrs. H. W. Mound, of the same city.

A very interesting class has been held in Hall Cottage on Sunday mornings for several weeks past, on the study of the Life of St. Paul, under the leadership of Dr. John F. Morse. It is expected that Doctor B. N. Colver will lead the class during the absence of Doctor Morse.

It is expected that Mr. Wm. Shaw, the national secretary of the Christian Endeavor Society, will be at the Sanitarium next Sabbath afternoon, when he will address our family in regard to the work for young people. At the forenoon services on the same day Messrs. Hillis, Rykert and Marsh, evangelistic singers from Jackson, will sing, and Mr. Van Dorn, of Chicago, will speak.

Dr. John F. Morse, of the Sanitarium medical faculty, expects to take his leave of us on the 10th for several months' absence in the old country. Most of the time will be spent in Edinburgh in post-graduate medical and surgical work, and the trip will include a visit to the Continent as well, we believe. The good wishes of our Sanitarium family attend Doctor Morse.

Rev. Henry Ostrum, Rev. J. W. Mahood, and Mr. John Hillis, in company with several of the local pastors, took dinner at the

Sanitarium on last Monday. The gentlemen named are engaged in evangelistic services in Jackson. Two years ago they conducted an evangelistic campaign in this city, where they made many warm friends who were glad to welcome them again.

The missionary rally was held as usual in East Hall parlor on Sunday afternoon. The meeting was led by Mr. R. E. Hoffman and the medical students' quartet gave a fine rendering of "The Shepherd True." The Rev. E. E. Silliman gave a very interesting talk upon "Child Marriage, One of the Evils of India." In the course of his remarks Mr. Silliman read portions of an essay by a well-known Hindu which was read before his Hindu associates.

On Monday evening Dr. J. H. Kellogg entertained the Sanitarium family by a most interesting account of his recent visit to Porto Rico and a very instructive description of the island, accompanied by stereopticon views, and various products and objects which he brought with him. Among the objects of interest was quite a collection of Porto Rican vegetables, of which the Doctor brought us a supply sufficiently large to be served in the big dining-room to the family of several hundred guests, giving each one a taste of the Porto Rican bill of fare. The Doctor also brought a collection of several hundred tropical plants, a contribution to the Sanitarium greenhouses from Mr. May, the able and genial superintendent of the United States Agricultural Experiment Station located at Mayaguez, Porto Rico.

The 24th of April has been denominated Anti-Tuberculosis Sunday by the National Association, when ministers throughout the country will be invited to devote at least one service of the day to the consideration of the remedy for the great white plague. We believe this feature will be generally observed in Battle Creek and vicinity.

Rev. E. A. Jackson, a Baptist missionary from Brazil, gave a most interesting account of his field of operations in the Sanitarium parlor on Sabbath afternoon. He is located in the upper regions of San Francisco River, several hundred miles from the coast. His field covers a territory equal in size to once and a half the area of Texas, a territory in which he is the only Protestant missionary. This is a very fertile and resourceful country. Speaking of Brazil from the material standpoint, Mr. Jackson represented that country as being in extent large enough to cover the United States and the German Empire, with considerable room left. Its natural resources are incalculable. Its climate is for the most part healthful and salubrious. Its river systems are the most extensive and remarkable in the world. Its exports to the United States are some millions annually, and our exports to Brazil are less than one-fourth of their exports. The condition of the people as related by the speaker was a matter of great interest.

THE NEXT TIME

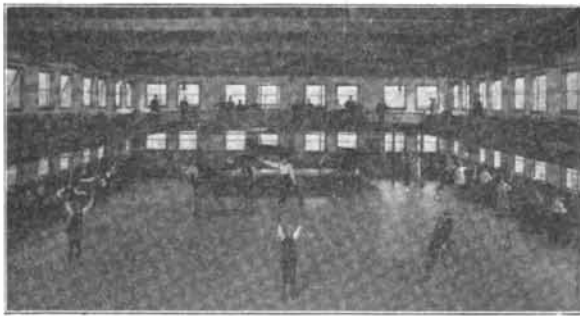
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THE BATTLE CREEK IDEA



Vol. III No. 19

BATTLE CREEK, MICH., APRIL 15, 1910

Price 2 Cents

HEREDITARY ATAXIA A NERVOUS DISEASE

Described in an Article by W. H. Riley,
M. D., of the Sanitarium
Faculty

In seeking for the causes of diseases that affect the human body, the physician discovers that heredity is an important factor in many cases. The influence of heredity shows itself in many different ways, perhaps most often in the form of a general weakness on the part of the body without any well devel-

The Examination of Patients

How Disease is Detected by the Sanitarium
Physician—Experiments are
Eliminated

UPON arriving at the Sanitarium for the first time the patient is assigned by the receiving physician to his permanent physician, who proceeds to take a history of the case and by a somewhat cursory examination to arrive at a general conclusion as to its nature. This examination includes a

CHRISTIAN SCIENCE ONLY SO IN NAME

Doctor Kellogg Examines the Claims of
the Cult to be Regarded
as Christian

CHRISTIAN SCIENCE is opposed to Christianity. It is utterly subversive of the principles of Christianity. It teaches principles which are diametrically opposed to Christianity. For instance, here is one quotation from page 471 of Mrs. Eddy's book, "Science and Health": "Man is incapable of sin and



SANITARIUM PHYSICIAN TAKING PATIENT'S HISTORY

oped disease of any organ or organs; but in some cases the influence of heredity may be so great as to show itself in a well-developed form, having a definite group of symptoms which are characteristic of some particular disease. There is, perhaps, no organ of the body but what may be affected by some disorder or disease in which heredity enters into the cause as an important factor. Thus we have various constitutional diseases, such as Bright's disease, diabetes, tuberculosis, arteriosclerosis, etc., in which heredity plays a
(Continued on page three)

statement of the symptoms of the trouble and the observations of the patient himself. These statements, however, are not accepted by the physician as a basis upon which to determine the course of treatment, for no matter how carefully the symptoms are stated and noted, they are still unreliable and indistinct in the diagnosis of the disease, and the best of physicians are liable to be misled by depending wholly upon symptoms; and yet, they are usually sufficiently accurate to enable the physician to classify the disease and
(Continued on page five)

death." Think of it! Why say that this thing is Christian when it says man is incapable of sin and incapable of death! What is Christianity for except to save men from sin and from eternal death? If there be no sin, if there be no death, there is no need for Christianity; the whole Christian system becomes obsolete at once; there is no need for it. "Sin is untrue and unreal"—page 488. Suppose a Christian Scientist is called before a Christian Science judge for murder, or for stealing. He would say, "Well, now, Judge, you know that there can be no such

faith the best she could; and the next Monday morning at nine o'clock the friends gathered in the room, and the Christian Scientist said, "Now, arise and walk." She made one or two dismal attempts, but fell back into her chair. She was completely paralyzed, and of course could not be helped. It was simply preposterous presumption on the part of this man. The muscles had wasted and she had no power to walk.

If the Christian Scientist would carefully select his cases and be careful to select only such as might be healed by the correction of a morbid state of mind, then there would be a larger number of successes and fewer failures. A poor woman came here a few years ago who had been treated by Christian Science for a tumor which produced a constant hemorrhage. For three months she had been treated by a Christian Scientist, who endeavored to make her believe that there could not be any such thing as a tumor; that it was only a morbid notion that she was sick. But the thing was real, and she kept losing blood, and getting weaker every day. Finally her friends brought her here, and she died the next day. The moment I saw her, I saw that the case was hopeless in spite of all we could do.

However, the subject is a large one, and much more could be said. There is healing power in the influence of the mind upon the body, but of this I shall have to speak later.

From what we have seen, I believe it must be apparent to all that this system that is attracting the favorable attention of many people just now, has no right to the title it assumes of being scientific and Christian, that it is essentially neither, and is in every one of its distinctive features opposed to all that is scientific or Christian.

HEREDITARY ATAXIA

(Continued from page one)

greater or less part. We also see many diseases of the nervous system in which heredity is quite an important factor. This is shown in various forms of insanity and in certain other functional and organic diseases of the nervous system.

Most of these diseases of the nervous system in which the hereditary factor is very active as a cause

USUALLY COME EARLY IN LIFE, during infancy, childhood or adolescence. Among these is an organic disease of the spinal cord and brain, which is described under the name of hereditary ataxia, also called "Friederich's ataxia," named after Dr. Friederich, who first described it in the year 1861 and reported six cases in the same family. The first cases noted in this country were noted and described by Dr. J. H. Kellogg in 1875. The cases were under treatment in the Battle Creek Sanitarium. Several members of the family are often afflicted with this disease, and for this reason it is sometimes called "family ataxia," or "hereditary family ataxia." It is a disease which is not very frequent when compared with other organic diseases of the nervous system, yet it is seen sufficiently often in our own country, as well as in other countries, to make it of interest to the physician,

and especially to physicians who deal with diseases of the nervous system.

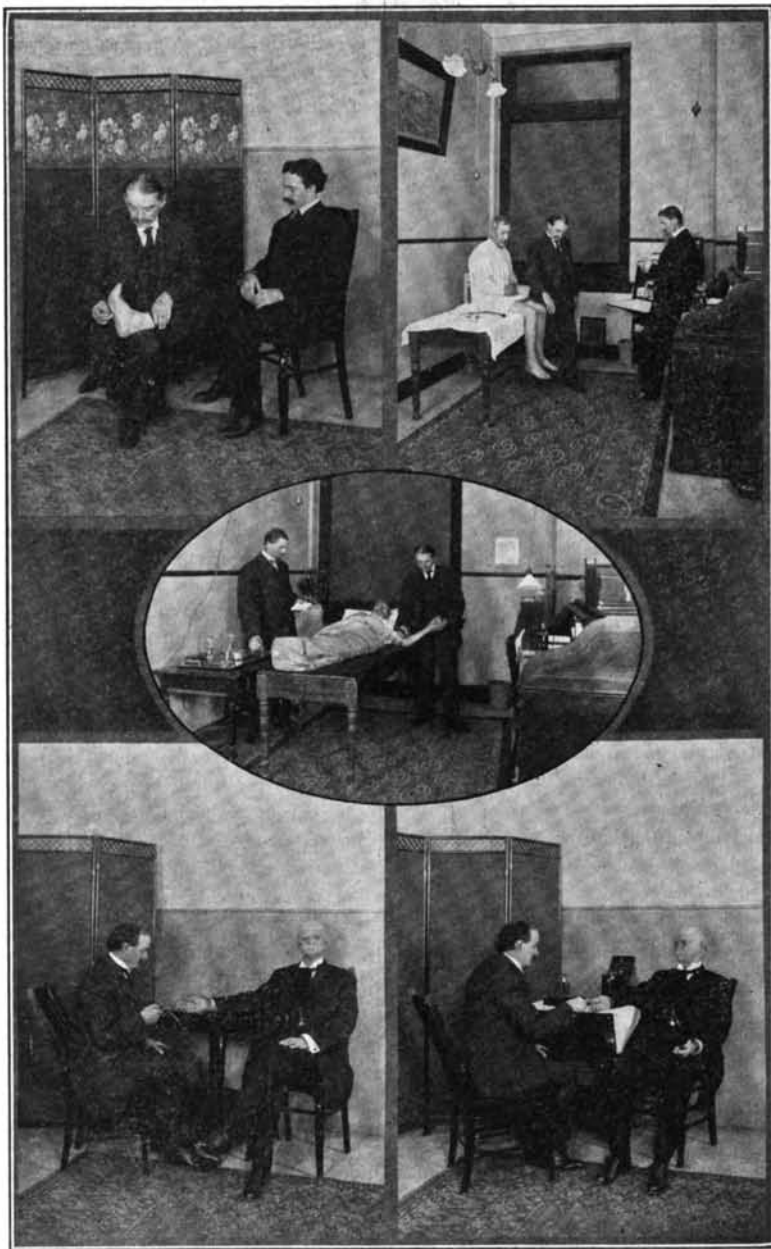
CAUSES

The causes of this disease are:

(1) Heredity, (2) age, (3) sex, (4) acute infectious diseases. We may now consider these further in detail.

(1) *Heredity.* As already indicated,

ropathic predisposition on the part of the father or mother, or both, or grandparents, or other ancestors. In some instances this neuropathic taint or predisposition is not easy to discover, as the parents may have no severe disease of the nervous system at all, but simply have a nervous system which is weak and unstable, one which is easily excited or disturbed by untoward influences.



NEUROLOGICAL EXAMINATIONS BY DR. W. H. RILEY

heredity is an important cause in producing this disease. The disease is not very often directly transmitted; that is, the parents of the patient who may be suffering with hereditary ataxia do not usually have this disease themselves. In some instances one or the other of the parents or grandparents or some of the ancestors do have the disease, but this is not common. The hereditary factor shows itself more frequently in other diseases of the nervous system, such as insanity or some neu-

When some other nervous disease is observed in the ancestors different from that of hereditary ataxia, the hereditary influence acts, as we say, indirectly, or the neuropathic predisposition is transformed in passing from parents down to offspring. Other constitutional diseases, such as syphilis, tuberculosis, diabetes, Bright's disease, alcoholism, occurring in one or the other of the parents of children, have been held responsible to a

(Continued on page four)

The Battle Creek Idea

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VOL. III APRIL 15, 1910 No. 19

LIVING ABOVE DISEASE

Ask a respectable man how he manages to escape from the corruption and villainy of the world that prevails in the low-down regions of society, and he will say that it is by living above such influences. He breathes a purer air, and lives on a higher level; he has high and noble thoughts and aims in his mind, and holds a healthy contempt for that which is base and vile. He will not allow himself to be contaminated with the things that vile people do and say. His duties may call him at times into the places where these things thrive; he may be a humane worker for the victims of vice, and have frequent contact with that which is vicious, but he is immune to those influences, and escapes from all the degrading agencies that overthrow others and drown them in destruction and perdition.

We can understand how this may be true with the men and women whose ways are right and pure, the avenues to whose hearts are closed to the reception of evil principles. The evil things that are brought to their attention have no hold upon them and are not allowed to obtain a lodgment in their minds.

The same things are true in physical matters. It is possible for a person to hold himself aloof from disease though he may be brought into contact with it in its most dangerous forms. Indeed, the moral evils of this world are not more prevalent and omnipresent than are the physical ills that threaten life and health. We are beset on every hand with the elements of death and disease. How we are ever to escape these enemies is a puzzle, and would be an alarming problem if the ordinary individual had the power to see these forces in their real strength and number; the sight would be terrifying, and he would expect to be dead in a short time.

But we are safe in the midst of such destroying agencies as long as we can keep them outside of our dwelling—outside of our vital domain. The germs of disease will surely invade our bodies; we swallow them, we inhale them, they lodge in our noses, and even penetrate our throats and lungs; they

get into our blood, they inhabit our intestinal region; and they may do all that and yet do us no harm. For everywhere in our system there are watchful agencies guarding our lives and destroying these invaders as fast as they make their appearance. The normal blood contains a sufficient number of protective agents to render it proof against the inroads of dangerous germs. The mucous fluid of the person in sound health is capable of destroying effectually all the multitudes of bacilli that find lodgment on the mucous surface. The gastric fluids secreted in a stomach in its normal strength are effectually germicidal. So that in our best physical estate we are well able to meet the enemies of our lives and subdue them. It is only when these harmful things find us debilitated, the blood becomes deficient in white cells, or the phagocytes are weak, or the gastric fluids are below normal, or the mucous surfaces are weakened or congested, that the elements of disease are able to seize upon us.

Evidently then our safety consists in keeping up to a high standard of efficiency all our vital powers and functions. Bad habits of eating and drinking, of breathing and clothing, should be carefully avoided, and by proper nutrition and exercise the system should be maintained on a "war footing" constantly. It is as if some country should allow its defenses to fall into ruin, its army and navy to become demoralized and ineffective, its internal organization to become enfeebled and unreliable, while at the same time the country was beset with foes ready to pounce upon it and despoil it. This is our situation, and our only safety is in maintaining in their best condition those defenses which nature has provided for the defense of our lives.

HEREDITARY ATAXIA

(Continued from page three)

greater or less degree for the cause of hereditary ataxia, some observers claiming that these constitutional diseases are not very active in producing this disease, while others report a number of cases where one or more of the above-mentioned diseases have been observed in the parents or other ancestors of the patient.

THE DISEASE ITSELF NOT TRANSMITTED

It is important to understand in this connection that the thing which is handed down from the parent to the child is not usually the disease itself, but rather a weakness on the part of the tissues which make up the nervous system. This weakness is so great that as the child is growing and developing before and after birth, certain parts of the

nervous system, particularly of the spinal cord, the medulla-oblongata, and the cerebellum in the brain, do not grow and develop as they should; consequently there are certain nerve fibers or systems of nerve fibers in these parts of the nervous system which come short of full development. It is therefore an embryological defect, or a lack of proper development during the process of growth in early life. This is the real thing that happens to the nervous system of the child that has this disease, and this is the real cause for the appearance of the symptoms which go to make up hereditary ataxia.

The disease is more often transmitted by the mother, but the mother does not usually suffer herself with the disease; but if we look to other members of the mother's family or to her ancestors, we quite frequently find some of them suffering with this disease. It also is more often found in rural districts than in the city, in large families rather than small, and among the poorer classes of society.

(2) *Age.* In addition to heredity there are other factors which should be noted in studying the cause of this disease. Next to heredity is age. This is a disease that comes early in life. Most cases are probably seen between the ages of six years and fifteen years. A number of cases, however, have been reported as occurring before two years of age, and quite a few in the third and fourth years of life; but the majority of cases are between the ages mentioned above. It may occur, however, later than fifteen years, and a few cases have been reported occurring as late as thirty years of age. Where several cases are seen in the same family, the succeeding cases occur at an earlier age than those that are afflicted first in the family; or in other words, the younger members of the family are affected earlier with the disease than the older members. The writer has seen five cases of this disease in one family. Friederich in his original contribution of this disease reported six cases in the same family.

(3) *Sex.* The male sex is said to be afflicted more frequently than the female, although the difference is not great. This is the way it appears when we examine all the different cases reported from various countries. In our own country some writers are of the opinion that more cases occur in the female than in the male. Personally I have seen more in the female than in the male.

(4) *Acute Infections.* Another apparently important cause of this disease is the acute infectious diseases, such as variola, typhoid fever, diphtheria, scarlet fever, rheumatism, pneumonia, whooping cough, etc. Many writers upon this subject report cases following one or more of these acute infectious diseases, and recently the writer has

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examined a case of Friederich's ataxia which developed at the age of three years, following an attack of whooping cough. This effect is probably the result of toxins or poisons of these acute infectious diseases increasing the weakness of the nerve tissue which already is of low vitality and has little vigor, so that the weakened nerve elements are not able to withstand the deleterious effects of the toxins from these acute infectious diseases. These acute infectious diseases seem to be so important a cause in exciting or bringing out ataxia that some good authorities think that they are really more important in causing the disease than anything else.

(5) *Other Causes.* Injuries to the body, bad hygiene, insufficient food, or anything that would tend to reduce the general health or lower the resistance of the body may be contributing factors in causing this disease.

PATHOLOGY

This is an organic disease of the nervous system. The part of the nervous system that is most often affected is the spinal cord and the medulla oblongata and the cerebellum, but in addition to these parts the pons varolii, the cerebrum and the peripheral nerves may also be affected, and in fact, in some cases the whole nervous system seems to suffer to a greater or lesser degree by the disease. In the spinal cord the so-called column of Goll and column of Burdach in the posterior columns of the spinal cord are the ones that are most constantly and most severely affected.

In addition to these the lateral columns of the spinal cord, especially the ascending cerebellar tract, the descending cerebellar tract, Gowers tract, and Lissauer's tract are also affected. Opinion is divided with ref-

erence to the crossed pyramidal tracts, some observers claiming that they with the other tracts in the lateral columns are affected, while others claim that they are not. It is interesting to note that as a rule we have no symptoms in the patient during life, in most cases at least, that would point to an involvement of the motor tracts in the spinal cord. Besides these, the direct pyramidal tract in the anterior columns of the spinal column are in some cases affected. In the gray matter of the spinal cord, both the anterior and the posterior horn are shrunken, and the cells in Clark's columns are also atrophied or completely degenerated, and the fibers which surround these cells in Clark's columns are shrunken and atrophied or completely destroyed.

The nerve fibers in these various tracts are absent in many cases; in others, they are shrunken, and in the place of the normal nerve tissue there is a proliferation or increase in the supporting tissue of the spinal cord. The changes described above as occurring in the spinal cord are also found present in the medulla oblongata, and in some cases that have been examined the cerebellum is smaller than normal. In a few cases the posterior nerve roots are shrunken, the cells in the posterior spinal ganglia atrophied. There is degeneration of the nerves in the peripheral nerve trunks, and also a leptomeningitis or inflammation of the meninges of the spinal cord. The cerebrum has also been found shrunken and undergoing changes similar to those which affect other parts of the nervous system. In a few cases there is atrophy of the optic nerve and sometimes other cranial nerves are affected, but this is rare.

In a subsequent paper we shall consider other features of this subject.

THE EXAMINATION OF PATIENTS

(Continued from page one)

to determine upon the necessary physical examinations.

The Sanitarium system of examining patients is complete and sufficiently varied to cover the entire physical system by a process of investigation that produces the most reliable evidence, not only of the nature of the disease, but of the condition of the patient, the peculiar requirements of each case, and the various modes of treatment and attention that are required for the restoration of health. By this process the physician is not only able to diagnose the case thoroughly and certainly, but he is also able to form a very intelligent prognosis, to determine the probable outcome of the case, and the result of the method of treatment which he decides to employ.

These examinations include the blood, the contents of the stomach, the urine, the feces, the sputum, lung tests, and strength tests, the latter being taken by a machine called a dynamometer, so arranged as to give a faithful test of the capabilities of every set of muscles in the human body. A drop of blood is taken from the finger and is analyzed as to hemoglobin and counted as to the red and white corpuscles, and its specific gravity and opsonic index are also taken. The stomach is examined by means of a test meal. A small quantity of dextrinized bread is eaten with a definite quantity of water, and after remaining in the previously empty stomach for a period of an hour, it is removed and examined by various tests in the gastric laboratory, by which the condition of the stomach and its power to digest food is carefully ascertained. The quantity of hydrochloric acid that is being secreted is carefully noted, and other careful observations are made concerning the gastric process. By this means the physician can intelligently work in the treatment of the stomach. Without this means the work must necessarily be experimental and uncertain, for it is only by careful analysis and actual examination by scientific methods that the real state of the stomach can be ascertained.

An examination of the sputum shows the presence of any bacteria in the lungs or mucous passages. The examination of the urine and feces indicates further the character of the digestive work, the presence of deleterious agents in the system, and the condition of the eliminative organs. The results of these various examinations are carefully charted, a copy being sent to the physician, and also furnished to the patient, both of whom thus obtain an intelligent and absolutely correct idea of the status of the case. The physician and the patient then intelligently work together for the removal of the difficulties, the restoring of vital activities, and the building up of the wasted energies; and the course of treatment is confidently outlined with an almost absolute certainty as to its favorable results, provided the careful and conscientious co-operation of the patient can be secured.

Of course the patient must be willing to discontinue any practice which has contributed in producing the existing troubles. He must be willing to conform to the instruc-

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Good Health (Monthly)	1.50 " "
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NOW IS THE TIME TO PROVIDE THE BEST OF READING

Address either of these Journals, - - Battle Creek, Michigan

tions that are given to him and which science and experience suggest as being the very best measures for his recovery. It has been ascertained and demonstrated many times, however, that the people who are the most willing to do this are those who receive the greatest and most speedy benefits from the course of treatment. With the true condition of the patient before him, the physician proceeds to map out a daily program, every feature of which shall contribute in one way or another to remedying the existing difficulty and promoting healthful activity of the various organs of his patient.

It is this scientific and intelligent method of analysis and investigation which lays wide open to the understanding of the physician the real situation of the case from the outset, that very largely enables the Sanitarium physician to do the effectual work that he is capable of doing in behalf of those who have long been ill, and the character of whose troubles have never been well understood.

DISGUSTING EATING

WE give herewith a portion of an article recently published by the *Los Angeles Times*, commenting upon the somewhat prevalent customs of the so-called "upper classes." It may be that some of our readers have obtained the impression that the BATTLE CREEK IDEA is somewhat ultra in its strictures on the "meat habit." If any are inclined to think so, we especially commend to them the following statements from the *Times*:

That bad beef, some of it ready to fall to pieces, was served at the White House during a recent administration, was the testimony of District Food Inspector Dodge today before the House committee engaged in investigating the high cost of living in the District of Columbia.

Like the President, Dodge continued, many wealthy people of the national capital were accustomed to eat from choice meat that had turned black and was well on the road toward decomposition.

He related an incident of one of his visits to a fashionable Washington market, where he found a quarter of beef, black and apparently unfit for human food. He condemned it, and was about to pour kerosene over it when the proprietor interfered and told him he had many wealthy customers who always ordered from such pieces of meat.

While the inspector was present, a footman from a wealthy family came in and ordered a cut from the piece which he had condemned.

"Gratification of canine appetites," commented Representative Johnson, of Kentucky, who asked Inspector Dodge if this class of meat was kept in the same coolers with beef intended for civilized people.

The inspector said it was.

To say this is a "gratification of canine appetites" is an insult to a decent dog. Rather say hyena appetites—or maggot appetites.

The epicure smacks his lips over "tender" meat. Now, "tender" meat is flesh that has begun to decay. All healthy flesh is tough. When an animal gets sick or becomes feverish from being overdriven, and made thirsty, and beaten, and terrified half to death, its flesh

becomes tender, and it is a dainty dish for a gourmand. The same is true of unfortunate animals that have been hunted until their hearts are ready to burst. The flesh of such animals is also notoriously tender—and poisonous.

The methods used to make meat tender for the morbid appetites of man are as various as they are disgusting. In England—and as we have seen above, sometimes in America—rich people have game hung up on a hook until it drops, when it is considered fit for a king. Rich people also eat the dung of snipe on toast and enjoy scraping up with a spoon the maggots in cheese.

On an English farm when a boy, the editor of the *Care of the Body* has been sickened by seeing a man cut out the eyes of a duck, before killing it, in pursuance of a popular superstition that this tends to make the flesh tender.

In Strasburg they nail unfortunate geese to the floor of small boxes and then stuff them until their livers are swollen to an enormous size. This is *pate de foie gras*, one of the most expensive foods on the market. Diseased goose liver is only for the rich.

Deviled kidneys are regarded as a great delicacy by some people, their peculiar flavor being due to the urine contained in the kidneys when the animal was killed. Yet these same people, who smack their lips over a deviled kidney, would shudder at the idea of sipping a cupful of urine. Strange, isn't it?

Some people suppose that after the horrible disclosures made by Upton Sinclair in "The Jungle," all that sort of offense against public decency has been done away with. Let such misguided people read the following:

"Dr. J. F. Harms, for a year and a half a meat inspector under the pay of the United States government at East St. Louis, recently resigned and gave in an article published by the *Springfield Republican* his reason for so doing—his inability to endure the sham and imposition upon the public which he saw practiced every day, and that to a most shocking extent.

"Mr. Harms declares that he has seen dragged into the killing beds dying animals branded 'U. S. inspected and passed.' In one case, a lot of eleven sick-looking, emaciated animals were passed by higher officials after they had been condemned by a subordinate.

"Still greater horrors are described by Mr. Harms: 'Some of the filthiest things imaginable were practiced in the sausage department, such as using bladders for casings with-

out thorough washing or cleaning, the use of filthy tripe in sausage, the use of slimy hogs' stomachs for casings or containers, etc.' Numerous other abominable and indecent practices are pointed out. Flesh abstainers have no occasion to worry on account of these exposures, but here is certainly serious food for thought by meat eaters. Mr. Harms declares that the \$100,000 spent annually in the meat-inspection service of the United States does not do one dollar's worth of good."

QUESTION BOX DEPARTMENT

EACH Monday evening Dr. Kellogg conducts a Question Box talk in the Sanitarium parlor, where all guests and patients are at liberty to submit questions relating to health and health topics.

Q. What is the cause of pain and a drawn feeling in the shoulders and neck, especially when eating?

A. This pain and pressure in the back of the head, and a rapid beating in the head all come from over-stimulation, from an excited state of the sympathetic nerves.

Q. On what side should a person lie at night?

A. I should say one should lie on the sleepy side. When a person says, "Now, I am going to lie on my right side," perhaps when he wakes up he will be lying on the other side. I have never been able to make my patients obey me when they were asleep. It is as much as ever I can do to make them obey when they are awake.

Q. How much time should elapse between the meal and the bath?

A. It depends upon the bath. If it is a hot water bag over the stomach or a fomentation over the stomach, or a moist girdle, it may be made immediately after the meal, or even a few minutes before the meal, or at any time during the meal; but if it is a general hot or cold bath, there should be two hours between the bath and the meal.

Q. What term was formerly used to indicate the same complaint or condition as is now called autointoxication?

A. Biliousness is the old-fashioned word. When a man has a bilious attack, he simply

THE BATTLE CREEK SANITARIUM AND HOSPITAL TRAINING SCHOOL FOR NURSES, BATTLE CREEK, MICHIGAN

This institution offers a three years' course of instruction for women and two years for men. In addition to the usual subjects taught in hospital training schools, special attention is given to all branches of physiologic therapeutics, including hydrotherapy, radiotherapy, phototherapy, kinesiotherapy, or manual Swedish movements, and massage.

Among other special advantages offered are laboratory instruction in bacteriology and chemistry, the use of the microscope, urinary analysis, practical course in cookery and dietetics, medical gymnastics, swimming, anthropometry and open air methods.

Applicants received whenever vacancies. The next class will be organized the first of April, 1910. For full information address

Sanitarium,

Battle Creek, Mich.

has autointoxication. The patient used to go to the doctor and say, "Doctor, my liver is out of order; give me something for my liver. I have a bad taste in my mouth, and I see specks before my eyes; my skin is getting dingy, and I want something to clear out my system." And the doctor would give him some purgative medicine and he felt better. The doctor said it would act upon his liver. It did not act upon the liver at all. What it did was to carry off a mass of poison, that putrefying mass in the colon was simply discharged and the body was relieved of the necessity of absorbing it and carrying it off through the liver and kidneys.

Q. One of the best physicians in Chicago says that mercury used in filling the teeth is injurious to health. Is this likely to be so?

A. I have met people who thought they had been insalivated by mercury in the teeth, but I have very serious doubts about it. Possibly there is a little harm from it, but I think it is so very small it would be difficult to prove it.

Q. Should one who has rheumatism eat acid fruits?

A. That is just the thing to do exactly. Oranges, apples, lemons, all kinds of fruit are complete foods, the very best for a person with rheumatism, because rheumatism, chronic rheumatism, is due to putrefaction. It is due to poisons that have developed in the intestine and are absorbed into the blood, and these poisons irritate certain muscles and nerves and produce rheumatic symptoms. Now fruits of all kinds discourage this process of putrefaction. They encourage intestinal activity and so prevent putrefaction to a very considerable degree. Acid fruits do not aggravate rheumatism, for rheumatism is not due to acid. Acute rheumatism is due to germs. It is an infection like smallpox and typhoid fever. Neither is chronic rheumatism due to acids; it is due to putrefactions in the intestine. Besides, the acids of fruits are converted into alkalies in the body. After they are taken into the body, they are oxidized, and after they have undergone this oxidizing process, they have left behind alkaline processes, so they actually decrease the acidity of the blood.

ARRIVALS

FOLLOWING is the list of arrivals at the Battle Creek Sanitarium for the week ending April 10: Rev. E. A. Jackson, South America; W. A. Dusenbury, N. Y.; Mrs. J. S. Kingsley, Ind.; P. H. Kelly and F. N. Otto, Minn.; R. S. Sear and family, Texas; Ward Smith, wife and child, Mich.; Mrs. Edw. D. Jones, Mich.; Geo. E. Upson, N. Y.; Mrs. S. H. West, O.; Mrs. A. M. Siggersloff, Mo.; Thos. H. Martin and wife, Duluth; Mr. and Mrs. Geo. H. Holmes, Wash.; Mrs. Isaac Lincoln, S. Dak.; C. E. Cowman and wife, and Verna S. Hertzler, Japan; Mr. and Mrs. John Ross Walker, and Jos. Walker, Ont.; R. H. Culp, Toledo; W. Reardon, Mich.; Miss Emma Noe, N. J.; Louis Faber, O.; F. J. Donohue and Dr. A. J. McLaughlin,

Iowa; J. T. Craig and son, Ark.; Mrs. Samuel Beck and Mrs. H. G. Zimmerman, Ind.; Mr. and Mrs. W. E. Scott, Mo.; C. W. Sutton and wife, Tex.; Mrs. L. A. Warburton, City; R. Williams, Denver; Mrs. Hunter Corbett, China; J. H. Harmon, Chicago; Jos. L. Hart, Argentina; Miss Frances Bishop, Ky.; Anna Parks, Wis.; Mrs. B. Billett, Cincinnati; C. N. Gillespie, Mich.; Dora M. Ingersoll, Mich.; Dr. F. S. Tuthill, Mich.; John Boyd Rowe, Ind.; J. B. Walker and wife, Ill.; L. C. Donaldson, Minneapolis; Mrs. J. J. Newbery, New York City; A. L. Flock and Ralph E. Flock, O.; Mrs. K. G. Grove, Buffalo; Mrs. M. McMillar, Jr., Chicago; Mrs. J. J. Mason, Ont.; Mrs. M. Simstun, Kalamazoo; David Paulson, M. D., Ill.; Mrs. F. F. Hutchins, Indianapolis; W. D. Smith, Jr., Mich.; F. F. Hutchins, M. D., Indianapolis; F. J. Phillips and H. B. Phillips, Toronto; Wm. F. Ellis, New York City; W. H. Johnson, Okla.; Mr. and Mrs. L. A. Miller, Chicago; A. E. Copping, Mich.; W. K. F. Villa, Minn.; A. B. Holbert, Ia.; W. F. E. Durrant, Canada; G. W. Abbott, S. D.; Frank Husband, Pa.; Mr. and Mrs. D. Fichman, New York City; Judd Yelland, Mich.; Mrs. S. Welch, Duluth; C. Deppen, Ind.; H. B. Kay, Mo.; Mrs. J. P. Conn and Miss Conn, Pa.; I. J. Raynolds and Miss Ross, Toronto; J. H. Uhl, Julia Uhl and Simon Krebs and wife, Pa.; L. E. Parsons, O.; G. Akas, Mich.; E. H. Webster, Mich.; Mr. and Mrs. J. E. Toole, N. Y.; Fritz Gaebel, wife and sister, Mo.; Mrs. J. C. Wayman, Chicago; Kathryn R. Schappell, New York City; Mrs. C. F. Ayers, Va.; Mrs. W. H. Jones, O.; Warren Dow and wife, N. Y.; J. M. Bishop, New York City; E. B. vanDorn, Chicago; Mrs. R. H. Culp, Toledo; Irving V. Koch, Chicago; Wm. Shaw, Boston; Wm. R. Hall, Mich.; Eleanor H. Bekeke, Ill.; Jno. Cronin and J. A. McDonald, Ga.; Thos. McEwan, Jr., N. J.; Chaney Gregory and wife, Mich.; Mrs. Walter C. Mack, Mich.; Mrs. Ella Williams and Ralph Williams, O.; J. S. Kingsley, Ind.; J. M. Barker, Ind.; C. L. Partridge, Chicago; W. T. Hixson and Mrs. Hixson, Tex.; E. S. Beckwith, Chicago; H. W. Schwartz, Japan; M. D. Dix, Mo.; W. Reardon, Mich.; Mr. and Mrs. F. A. Rising, and Miss May B. Rising, Minn.; Walter C. Mack, Mich.; C. C. Dusen and W. W. Dusen, La.; R. C. Kittell and wife, N. Dak.; J. Murray, Mich.

News and Personals

Miss Frances Bishop, of Madisonville, Ky., is a recent arrival at the Sanitarium.

Mrs. Walter C. Mack, of Ann Arbor, Mich., a frequent visitor at the Sanitarium, is again with us.

Mrs. W. H. Jones, of Columbus, Ohio, is visiting her daughter, Mrs. Dorothy E. Moeller, who is a patient in the institution.

Dr. E. L. Eggleston, of the Sanitarium medical staff, left us last week for a ten days' pleasure trip to Florida.

A party from Somerset, Pa., arrived at the Sanitarium last week consisting of Mr. and Mrs. J. H. Uhl and Mr. and Mrs. Simon Krebs.

Steps are being taken for the organization of a Sanitarium Society of Christian Endeavor. A meeting will be held for this purpose on next Sunday evening.

Among the old friends and patrons of the institution, we note the following who have returned for further rest and treatment: Mrs. J. J. Newberry and Mrs. D. Fichman, of New York City; Mrs. B. Billett, of Cincinnati.

Among the recent arrivals at the Sanitarium we note the following missionaries: C. E. Cowman and wife, and Verna S. Hertzler, of Tokyo, Japan; Rev. E. A. Jackson, Bahia, Brazil, South America; Mrs. Hunter Corbett, of Chefoo, China; J. L. Hart, of

Just a Word To Our Patrons

The Sanitarium has a first class washery and your clothes will receive special care at reasonable prices.

Phone Office for boy, or

SANITARIUM LAUNDRY

TWO COURSES IN DOMESTIC SCIENCE

The One-Year Course, intended especially for Matrons and Housekeepers or for those who desire it for its educational value, includes General Cookery, Invalid Cookery, Institutional Cookery and Practice Cookery, Anatomy and Physiology, Household Chemistry, Home Nursing, Household Microscopy, Household Economics and Architecture, Sewing, Medical Dietetics, Theory, Table Service, Physical Culture, etc.

The Two-Year or professional course, intended especially for Dietitians, Lecturers, and Demonstrators, includes all the studies of the one-year course, and in addition Advanced Chemistry, Advanced Physiology, Sanitary Science, Bacteriology, and Hygiene, and Advanced English.

ONE SPECIAL FEATURE of this school is that students are given an opportunity to meet a large part of their expenses by work along lines which aid them in their studies.

**The Battle Creek Sanitarium School
of Health and Household Economics**

**BATTLE CREEK
MICHIGAN**

Rosario, Argentine; H. W. Schwartz, Sendas, Japan.

It is expected that Mr. J. C. Riggs, Mr. C. E. Kimlin, Dr. R. B. Parrish, and Pastor G. C. Tenney will attend the Layman's Missionary Convention to be held in Grand Rapids on the 17th, 18th and 19th inst. They will go as representatives of the Sanitarium congregation. *

Mr. C. B. Stephenson, of South Bend, Ind., a warm friend of the Sanitarium and a frequent visitor, is here again, and this time he brought with him a magnificent and capacious automobile, which he employs in giving his numerous friends charming rides through the city and surrounding country.

Miss Lena Steinel, who was for many years connected with the clerical work of the Sanitarium, and acted as secretary for the Haskell and James White Homes, is spending a few weeks in Battle Creek, recuperating from an extended illness. Miss Steinel has been matron of the Attleboro (Mass.) Sanitarium for the past year.

Last Sabbath morning, the chapel services were varied and enlivened by the presence of Mr. John Hillis and Mr. J. P. Rykert, singers, and Mr. Marsh, pianist, from the evangelistic company now at work in Jackson. Their singing was of a very excellent order and contributed very much to the interest and effectiveness of the services. During the hour Mr. E. B. Van Dorn gave a brief account of the Life Boat Mission work in Chicago.

On Monday afternoon at 2 o'clock a meeting was called in the Sanitarium chapel for the purpose of considering the organization of a society of Christian Endeavor. The meeting was very largely attended by the Sanitarium employees, and a number of guests were present as well. The meeting was addressed by Mr. Wm. Shaw, of Boston, the general secretary of the movement, and Dr. J. H. Kellogg. Considerable enthusiasm was manifested and steps were taken to organize a union for the benefit of the young people of the Sanitarium, and a meeting for this purpose will be called at an early date.

The Sanitarium family has enjoyed a visit from Mr. Wm. Shaw, the general secretary of the Christian Endeavor Society, who has been for twenty-seven years intimately associated with Dr. Frances E. Clark in promoting this world-wide movement among the young people. Mr. Shaw was with us for two days and conducted a number of services, including a large young people's rally in the Presbyterian church on Sunday evening. He was accompanied by Mr. W. R. Hall, of Ann Arbor, the Michigan secretary of Christian Endeavor Societies, who also spoke frequently, to the edification of our people.

The regular meeting of the Sanitarium W. C. T. U. was held on the evening of the 7th inst. at the home of Mrs. W. F. Martin. The audience appreciated the violin and piano solos which were pleasingly rendered by the Misses Edwards, and little Miss Jeanette

Martin was heartily applauded for her sweet solo, "Voices of Spring." The devotional exercises were conducted by Mr. R. S. Owen, of the Haskell Home. The principal paper of the evening was read by Mrs. S. M. Baker, on Social Purity in the Home. The subject being one of prime importance, was full of splendid thoughts and helpful suggestions to mothers.

Mr. E. B. Van Dorn, who for thirteen years has superintended the work of the Life Boat Mission on South State Street, Chicago, was a visitor at the Sanitarium over last Sabbath. Some changes are proposed in the work there, which were taken under advisement while Mr. Van Dorn was here. The Mission owns a farm of twenty acres near LaGrange, about seventeen miles from Chicago, which is conducted by Mr. Van Dorn as a refuge for rescued men, where they are given an opportunity to rally and get on their feet while performing some light work about the farm. A large number of men have thus been helped to rise from the depths into which they had fallen; given a chance to sober up and get their right minds, take a new start in life; and have gone out again into the world to make good, and to rebuild that which had been torn down in their lives. Out of this company of men, one proved to be treacherous and stole two of his benefactor's horses. One of the horses was recovered at considerable expense and the other was lost to Mr. Van Dorn. This loss comes heavy upon one who is giving his life for very small returns, and the Sanitarium family has undertaken to make up the loss.

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By affiliation with the American Missionary Medical College, courses in Anatomy, Histology, Physiology, Hygiene, Physiology of Exercise, Physiological Physics and Chemistry, Physical Diagnosis, Accident and Emergencies, Urinalysis, Blood Analysis, Etc., of exceptional value are offered.

By affiliation with the Battle Creek Sanitarium students obtain Hydrotherapy, Mechanotherapy, Emergency Nursing, and Medical Gymnastics.



Tenical subjects, such as Anthropometry, History and Literature of Physical Education, German and Swedish Gymnastics, Indoor and Outdoor Athletics, Swimming and other sports are conducted by an able faculty of specialists.

MR. HORACE FLETCHER will give during the year a course of lectures on "Vital Economics." The next regular term begins April 5th.

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Terms Tuition, full year, \$100 including the Summer School. Tuition for Fall, Winter and Spring Terms, \$75. Tuition for Summer School alone, \$35. Board \$3.00 to \$3.50 per week.

Self-Support Unusual opportunity is presented by the Sanitarium for earning money toward expenses. Application for entrance for Summer and Fall Terms should be made this spring. An illustrated announcement containing further details will be sent upon request.

Address: WM. W. HASTINGS, Dean,

NORMAL SCHOOL OF PHYSICAL EDUCATION Battle Creek, Michigan

THE BATTLE CREEK IDEA



Vol. III No. 20

BATTLE CREEK, MICH., APRIL 22, 1910

Price 2 Cents

HEREDITARY ATAXIA A NERVOUS DISEASE

Symptoms and Treatments, as Indicated
by Dr. W. H. Riley, of the San-
itarium Faculty

PATHOGENESIS: The term pathogenesis is used to indicate the sequence of changes which occur in the tissues of an organ or organs in the development of any disease, and also to indicate the relation between these changes in the tissues and the appearance of

WHAT IS GOOD TO EAT THE SANITARIUM DIETARY

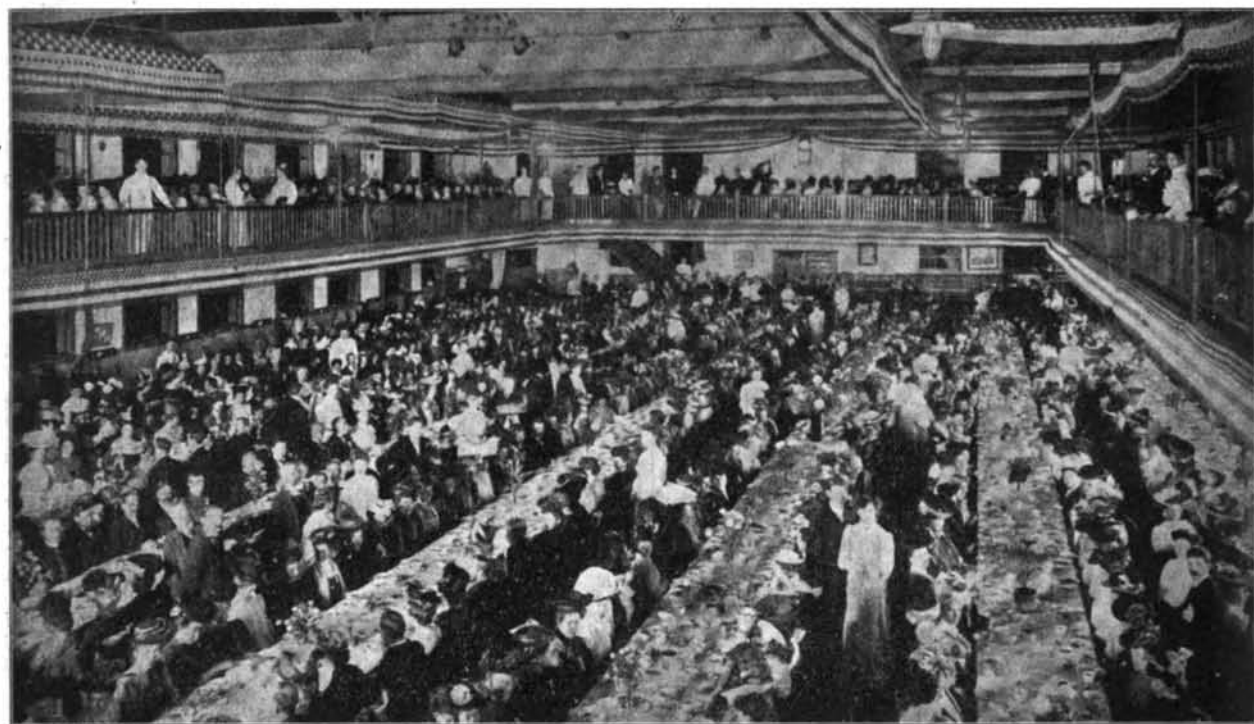
Eat Ye that which is Good, is the Maxim
Followed at the Tables of
the Institution

WHAT does the Sanitarium feed its people? This is a question upon which there is a great deal of misapprehension, and upon which considerable needs to be said in order to disabuse the minds of those who contemplate coming here, but often are deterred

TYPHOID FEVER DIET AND TREATMENT

Extracts from a Lecture by a Physician—
Some Popular Errors Exposed and
Proper Methods Suggested

THE question as to the proper management of typhoid fever is an exceedingly pertinent and practical one, both because of its intimate relation to the preservation of life and the prevalence of mistaken practices in connection with it. I shall at this time speak



MICHIGAN TEACHERS AT A SANITARIUM BANQUET

various symptoms as the result of these changes. In the disease that we are now considering we have already mentioned the parts of the spinal cord and brain that are affected by this disease. In our description of the pathological changes we mentioned the different parts of the spinal cord, medulla, cerebellum, and other parts of the nervous system that were affected by this disease. It is important to state, however, that the changes are not necessarily what they may
(Continued on page four)

from doing so by the fear of actually suffering starvation. Now we desire to assure all such people that there is not the slightest ground for fear in this matter.

It is perfectly true that the Sanitarium does not advertise to cure people of their ailments "with no change of diet" while they are suffering because of pernicious practices in that line. The Sanitarium places at the foundation of its ethical code the proposition of sacred writ: "Cease to do evil, and
(Continued on page three)

only of the proper diet for typhoid patients and of the treatments to be given.

First of all, the diet. The diet which is ordinarily prescribed for typhoid fever is milk. Milk punch, or whiskey and milk, is still the ordinary prescription in the United States army, and for a great many years it was the standard prescription everywhere in the English and American hospitals. When a man had typhoid fever, or fever of any sort, the regulation diet was brandy and milk, or whiskey and milk, and the result

Original from

UNIVERSITY OF MICHIGAN

was that twenty to thirty per cent of patients died. In some epidemics of typhoid fever, as many as thirty-five or forty per cent of patients died, and there was a good reason why they died.

TWO THINGS WHICH DESTROY LIFE

in typhoid fever are heart failure, and infection—paralysis from toxins. The typhoid fever germs growing in the intestine produce poisons, and these poisons absorbed into the body intoxicate the body, producing paralysis of the great functions of life. The heart is one of the most important of all the organs, because it supplies blood to all the other organs; it is one of the great centers of life. These poisons paralyze the heart. Alcohol is a poison, particularly a heart poison; consequently alcohol is one of the very worst things possible for a man with typhoid fever, or with any other kind of fever, for that matter. The world is waking up to

cine, who wrote three centuries before Christ, one of the most eminent physicians who ever lived, found out that milk was not good in typhoid fever, and he gave his patients barley gruel; and there is nothing better than barley gruel except fruit soup. Make a combination of cherries, raspberries, and dried apples—dried apples are particularly good,—and figs, or other fruits, and boil them together for a long time; then strain through colander or cloth, and you have a delicious fruit soup. Raisins are a particularly good element. A very little corn starch put in it to give it a little consistency, will make a very nice fruit soup, and an exceedingly excellent food for typhoid fever patients. Fruit juices of all kinds are good; grape juice is especially good.

There is no danger of the patient starving. An ounce of good milk contains twenty-one food units; and an ounce of grape juice has twenty-four food units. An ounce of apple

or 101°; that is low enough. The temperature ought not to come down to normal until the patient becomes convalescent. If the patient's temperature came down to normal the first week, it might indicate either that the patient was very badly off, or that he had a very light attack. It is necessary that the patient should have a temperature of 100° to 101° in order that the system shall be able to fight the disease properly, in order that the germs may be killed.

One of the best means of

LOWERING THE TEMPERATURE

is the long-continued bath, a full bath at ninety-two degrees. The patient may be put into such a bath and kept there almost indefinitely. Put some blankets under the patient, and let him lie on the blankets in the bath, and his temperature will certainly be controlled. A cooler bath at 88° to 90° will with absolute certainty bring the temperature down sufficiently. The wet sheet pack is also very effective in reducing the temperature. The procedure is to wrap the patient in a sheet pack wrung out of water at ordinary pipe temperature. Wring the sheet quite dry, then wrap it tightly around the body, cover the patient with several blankets wrapped around and tucked in tightly, especially about the shoulders; and when the sheet gets warm, in about six or eight minutes, take it off and put on another; and go on in that way with six or eight or ten sheets, and the temperature will certainly be reduced. The temperature can always be controlled in this way in any place, provided the thing is done properly. Proper feeding, proper nursing, the wet sheet pack, or the prolonged bath will control a fever, and will effect a cure in almost every single case. In eleven hundred cases of typhoid fever treated by these methods every single case recovered. That was done in the German hospitals; but could just as well be done in this country. The mortality will not be more than three per cent when the patients are treated by the method I have suggested. If the treatment is applied from the very beginning, scarcely one will die.

There is no good reason why we should not save the lives of thousands of people. Something like 73,000 people died of typhoid fever last year. Five out of every six of that 73,000 people could have been saved. Sixty thousand of those people might have been saved just as well as not if they had been fed rightly and had bath treatment instead of the old-fashioned whiskey and milk treatment.

FIVE OUT OF SIX SHOULD BE SAVED

I am willing that you should repeat that from me just as widely as you wish to; you may tell everybody you want to that Doctor Kellogg said that five-sixths of the people who die of typhoid might be cured easily. I am prepared to back that up by statistics, and nobody can meet or deny it. The time has come when the people ought to know that the horrible slaughter that is going on year after year from acute diseases is entirely unnecessary. The mortality from pneumonia is about twenty-five per cent, and in some epidemics it is fifty per cent, and in some seventy-five per cent; and in a report made by



THE SANITARIUM DINING-ROOM

appreciate the enormous harm that is being done by the use of alcohol, particularly in the treatment of typhoid fever, pneumonia, and other diseases in which the integrity of the heart, the maintenance of cardiac power, is a thing of the greatest importance. Hundreds of physicians refuse to prescribe it.

These poisons which paralyze the heart are produced by germs, and the germs grow best of all in milk or beef-tea; and yet milk and beef-tea are the things which are fed to fever patients more than anything else. Then one can readily see that milk and alcohol are the two worst possible things in typhoid fever—milk because it furnishes food to support the growth of germs and encourages their growth; and alcohol because it is itself a heart poison and debilitates the heart. If milk is to be given in any form, it should be in the form of buttermilk or yogurt buttermilk, but in no other form.

WHAT SHALL WE EAT, THEN?

Hippocrates, one of the fathers of medi-

juice has seventeen food units; skimmed milk has only eleven food units; buttermilk has eleven or twelve food units; so you see at once that fruit juice has more nutrition, or as much nutrition, as milk, and there is no danger whatever in giving a patient fruits for a diet in this disease. Typhoid patients may have all the oranges they want. There is nothing better than orange juice for a patient with typhoid fever. The patient can live on orange juice with a very little dry toast, or other cereal food, all through the disease, with great advantage; or he may subsist simply on barley gruel. Corn or wheat or rice flakes are very good indeed. No other cereal food equals rice, both for nutrition and digestibility.

NOW AS TO THE TREATMENT

The proper treatment for typhoid fever is simple enough. The first is cool water treatment to keep the patient's temperature down within reasonable limits. Do not expect to get the temperature down below 100°

a doctor who gathered statistics for a paper read at the American Medical Association at Atlantic City a few years ago, one doctor reported that all his pneumonia patients had died; he reported 100 per cent mortality. Another doctor reported three per cent mortality, and that doctor who reported three per cent mortality was Doctor Mays, of Philadelphia, an eminent physician, who employs the water treatment. Doctor Mays has been using water treatment and advocating it for the last fifteen or twenty years. He employs ice-bags on the chest.

A lady told me to-day that her brother, who is a physician, uses cold water on the chest, and had not lost a single case of pneumonia while doing so. But this lady said, "O, I am so afraid of water. If he put cold water on my chest, I should send him off and get another doctor."

WE MUST GET OVER THIS HYDROPHOBIA

People are getting over it somewhat; we are finding out that water is our best friend, and if properly used we can save an enormous number of lives. It is reported that 416,000 people died of pneumonia last year, and four-fifths of them might have been saved; 350,000 of those people should be alive to-day instead of being in their graves. Of typhoid fever and pneumonia patients together, there might have been saved more than 400,000 people last year, if the people simply knew the right use of water. This rational method of treatment, which is so wonderfully successful in acute diseases, is likewise the most rational remedy in most chronic diseases.

WHAT IS GOOD TO EAT

(Continued from page one)

learn to do well." There is no hope of recovery held out to people who have injured themselves and brought suffering upon themselves by certain evil ways without first a willingness to correct those ways.

But the leaving off of harmful things, the discarding of hurtful items from the bill of fare does not even imply a starvation diet. It is a great mistake to suppose that the injurious things that people are in the habit of eating are all there is to live upon. Those things which are most healthful and desirable are those which are most abundant and accessible. The simplest forms of food are the most available and the most desirable.

The Sanitarium bill of fare excludes flesh foods of all kinds. Why?—Because it has been demonstrated to our entire satisfaction, both by scientific investigation and a long and varied experience, that these foods are not the most suitable; on the contrary, they are productive of disease, they are favorable to the development of disease conditions, they are not best calculated to strengthen and nourish the system. Tea and coffee, condiments, spices, peppers, hot sauces, astringents, and stimulants, irritants and poisons of all kinds are eschewed, and the diet is formed on the principles of simple and sane nutrition.

But in constructing a dietary on such lines let no one suppose that it is necessary to do violence to taste, to delicacy, and to some-

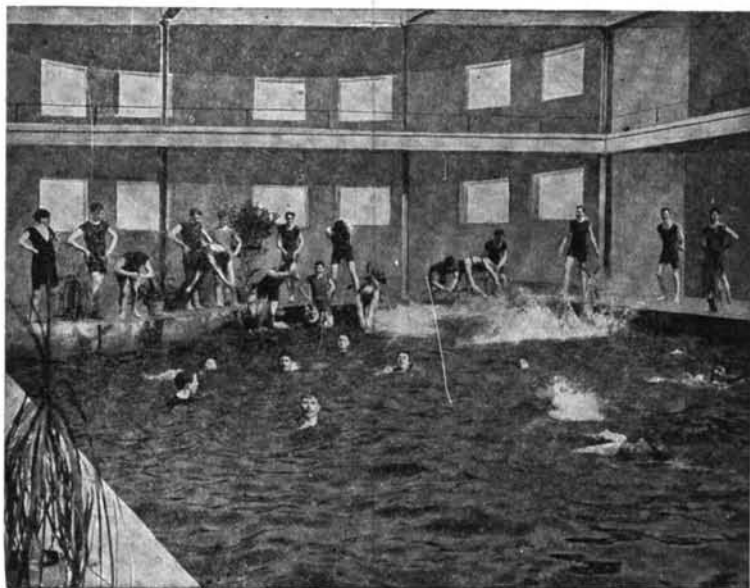
ness. Let no one suppose for a moment that in adopting such a diet he is depriving himself of the most delicate and pure flavors of food. The fact that food must be relished and thoroughly enjoyed in order to be acceptable is fully recognized at the Battle Creek Sanitarium. And those who are familiar with the cuisine of the Sanitarium will vouch for the statement that its foods do not lack for appetizing flavors and appearance; that it appeals strongly to the senses, as soon, at least, as one brings himself to the recognition of a true esthetic sense of taste and flavor.

The Sanitarium dietetic code does not consist mainly of "Thou shalt nots." Only those things are taboos which are artificial and not natural, harmful and not nourishing. The whole storehouse of natural food products is available to the one who "eats to live." The diet which divine wisdom and goodness provided for the human family and plainly assigned to them is the one that is

this diet and became giants of strength and prowess. There is nothing effeminate or weak in the diet that is akin to that of the buffalo, the ox, the elephant, the gorilla. The food produced directly for us by Mother Earth, prepared and served according to the knowledge we have of the requirements of our system, and eaten in moderation, are the foods that every consideration urges as the very best for mankind.

The habit of slaughtering and cooking our fellow creatures and eating them while we are so bountifully supplied with the very best food that God himself designed for our sustenance is most repugnant to every refined sensibility. The very thought of it, even if there were no other considerations, should forever debar the flesh of innocent creatures from our tables. But humane considerations are not the only ones to be taken into this account.

The cooking and preparation and serving of the class of foods that comprise the San-



THE SANITARIUM SWIMMING BATH FOR MEN

adhered to by this institution, and both science and experience justify the wisdom and goodness of the original provision. The very first provision that the Creator made for mankind was in regard to his food; for in the first chapter of the Bible it is recorded: "And God said, Behold, I have given you every herb bearing seed, which is upon the face of all the earth, and every tree in which is the fruit of a tree bearing seed; to you it shall be for meat" [food].

In this provision are included all cereals and fruits and nuts. These all grow in the sunshine and comprise the very best elements of life and nutrition in a perfectly pure and wholesome form. The "herb of the field," or what are distinctively known as vegetables, were subsequently added to the original list of foods. All the additions and devices that have been added by men's art and appetite are wholly superfluous and almost universally injurious.

The diet here prescribed is in the highest degree nourishing and strengthening. The ancient world largely lived and thrived on

itarium bill of fare is an art of peculiar interest. The diet is in many cases made a part of the medical treatment of the patient. It is always taken into consideration in the management of the case, and from first to last every step of the work of the culinary department is under the supervision of the medical department. The selection of the materials, the cooking, and the serving are all done with the welfare of the patients in view. We shall take the opportunity to investigate the details of this work more specifically.

The students' prayer meeting, held in East Hall parlor last Friday evening, was well attended. Rev. J. P. Jones, D. D., of India, gave many stirring and encouraging incidents showing not only the eagerness of the natives to hear the word, but also the marvelous success that has been given to its preaching. He impressed the students with the idea that the best equipment a missionary can possibly have is none too good for the glorious work to which he is called.

The Battle Creek Idea

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VOL. III APRIL 22, 1910 No. 20

THE IMMORALITY OF THE LIQUOR BUSINESS

ACCORDING to the papers, a Chicago municipal judge has taken the liberty to suggest to the mayor of that city such a revision of the municipal code and practice as will exempt from arrest and imprisonment drunken men who are creating no disturbance, but are perhaps unable to reach their homes. The judge proceeds on the proposition that there is no reason why a man who is not acting in a disorderly way or committing any breach of the peace should be treated as a criminal. He therefore recommends:

That every intoxicated man who is merely helpless and not noisy or disturbing the peace be accompanied to his residence by an officer instead of being locked in a police station.

The purpose of a police department should be to do the most good for the greatest number of persons.

It will promote a spirit of kindness rather than revenge. To arrest a man for drunkenness savors of revenge.

For a man to be brought home by an officer will have as great a moral effect as to take him to a police station.

The question put forward by his Honor is one which may be discussed pro and con. The victim of drink is too weak mentally, morally and physically to resist the inducements that are placed before him to become intoxicated. He knows better, every reason protests against his course, but his enslavement to vicious appetite, and the many opportunities for gratifying that appetite, appeal to him so strongly that he yields. The man is found in a helpless condition, thrust into jail, brought before the court and a jail sentence or a fine is imposed upon him, the result of which is that he very likely loses his job, his family must suffer, and the Judge says that he is not a criminal and has violated no law, yet he is forced into the criminal classes and is stamped as a "jail-bird."

The other side of this question will urge that the man had no business to yield to his

passion; he should be more of a man than to become drunk while he knows the consequences; that if he is so fortunate as to reach home without falling into the hands of the police, he is likely to abuse his family, smash the furniture, half kill his wife and break her heart with his beastly behavior, deprive his family of the comforts that belong to them, voluntarily making a fool of himself, which of itself is inhuman and criminal; and, that it is a blessing to his family and a favor to himself to be locked up.

With these two sides of the question before us, there seems to be no evading the conclusion that the authorities which consent to a traffic that creates such situations by the thousands is, after all, the most culpable factor in the whole business. The government that licenses men to debauch homes and degrade humanity is really the responsible party. The height of the inconsistency is seen in the course usually followed of permitting men to sell intoxicants to other men to drink, only to be seized by the police, prosecuted, fined and jailed, all because he drank of the liquor which the same authority that is prosecuting him encouraged the other man to sell him. The inhumanity of the whole thing is bound up in the infamous traffic itself. The only consistent course for the government in the matter is to stop it.

PAYING FOR WHAT WE GET

ONE of the most villainous and deceptive forms of quack advertising is that by which people who are subject to their ruinous appetites are deceived into believing that a certain nostrum will absolutely cure them of their maladies, and "no change of diet is required." This claim proceeds on the suggestion that one evil will cure another, which is contrary to every righteous principle either in physical or moral ethics. It is an outrageous imposition upon the credulity of an ignorant public to lead people to suppose that there are any means in existence by which a man or woman can pursue a reckless course of lawlessness and escape the consequences. "The wages of sin is death" is indelibly written in God's law, and deeply engraved in human experience. And the man who advertises some method by which an individual can continue indefinitely in a course of transgression and avoid the consequences is a charlatan, a thief, and a robber. He knows better, and every sensible man and woman ought to know better, and would know better if their appetites had not so far gained the predominance over them as to blind their eyes to an evident truth.

Errors in diet and eating are responsible for the great majority of human ills and ailments. This being true, the sole remedy for this state of things lies in a reform of diet and modes of eating. Since the body depends upon the quality and quantity of its nourishment for its efficiency, and since its

nourishment has been of a kind to destroy and debilitate the system, common sense itself would indicate that such a reform should take place as would substitute that which is proper and healthful and nourishing for that which is artificial and injurious.

It is absolute folly for one to presume on the foolhardy supposition that he can force his way through the barrier of the laws of nature and do as he likes about his personal habits. Let such foolish people take notice. They will sooner or later find themselves helpless victims of their own folly. Happy is the man or woman who sees the danger and chooses a wiser portion before the consequences of evil doing begin to tell upon him or her.

HEREDITARY ATAXIA

(Continued from page one)

appear to be without careful investigation.

In the posterior and lateral columns of the spinal cord there are various systems of fibres. These systems are not necessarily separated one from the other by bundles. It is thought that in this disease there are certain fibres that are sort of picked out in the posterior and in the lateral columns of the spinal cord and are affected, while others in the same bundle are not affected. These fibres that are affected or supposed to be affected particularly in this disease are what we may call the cerebellum system of fibres; that is to say, in the posterior columns of the spinal cord there are some nerve fibres which end in the spinal cord; there are others which end in certain nerve centers in the medulla, and from these nerve centers in the medulla some pass to the cerebrum, the large brain, while others go to the cerebellum. In the lateral columns of the cord, likewise there are certain fibres which are connected either directly or indirectly with the cerebellum, where there are other fibres which are not connected with the cerebellum, but which lie side by side in the lateral columns with those which are connected either directly or indirectly with the cerebellum. It is this system of cerebellum fibres which is thought to be particularly affected in this disease, while the other fibres which may pass through the other parts of the nervous system are not at least first affected or most affected, and when affected are usually diseased to a lesser degree and later in the progress of the disease.

The marked symptom of incoordination which these patients show in walking and in performing various movements is thought to depend upon a disease of these fibres which pass to the cerebellum. In the other form of ataxia, that is, in ordinary locomotor ataxia or tabes dorsalis, the posterior columns and sometimes the lateral columns of

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the spinal cord are affected, but in this disease we have various disturbances of sensation, such as severe pain, paresthesias, hyperaesthesias, anaesthesias, and all of these various disturbances of sensation relate to one or more of the senses, such as touch, pain, temperature, muscular senses and joint senses; but in hereditary ataxia the nerve fibres in the spinal cord which convey these various sensations to the brain are not disturbed as they are in locomotor ataxia. This is one of the important distinctions between these two diseases. Here we have a disease that picks out certain fibres passing to the cerebellum, while other fibres which have to do with sensations and which perhaps lie right by their side in the diseased part of the spinal cord and the medulla oblongata are not affected.

The fibres of the column of Goll are usually most diseased, have little vigor and can not carry on the duties which are imposed upon them as in performing muscular movements, such as walking, etc. Secondly, they soon break down under the load of walking and performing movements, because of their weakness. When these fibres break down and degenerate, the burden of the work is taken up by other fibres in the lateral columns of the cord, and these in turn are broken down by the work that is imposed upon them.

Briefly, this is an explanation for the appearance and progression of the well-marked inco-ordination that is seen in this disease. As already indicated in the pathology, the cerebellum may also be diseased as well as the spinal cord and other parts of the nervous system.

SYMPTOMS AND TREATMENT

SYMPTOMS: The most important symptom of this disease is a disturbance in the co-ordination of the muscles; at least this is

the symptom which is most prominent at the beginning of the disease. It may be observed when the patient is walking. He has a peculiar, disorderly, staggering gait—a gait which resembles very closely that of a person intoxicated by alcohol. The patient takes a zigzag or an irregular course and staggers as he walks, and reels about to a greater or less extent, very much as a man does who is under the influence of alcoholic liquor. This is the so-called cerebellar or cerebellar-ataxic gait. This inco-ordination of movement begins usually in the legs and extends upward, affecting in turn the muscles of the trunk, of the neck, the muscles of speech and the muscles that move the eyeballs. As it extends upward and affects the muscles of the trunk, the body sways to and fro and the patient is unable to maintain a quiet position when sitting. In the arms the inco-ordination is shown by irregularity in writing and in performing various movements, like buttoning the clothing, or in grasping objects, or in taking a glass of water, and in performing various movements with the hands and arms. In the arms are also often seen so-called choreiform movements. These consist of irregular, jerky, involuntary movements resembling the movements seen in a child suffering from St. Vitus' dance or chorea. These are present when the patient is quiet. Also when he performs voluntary movements the head has a nodding movement to and fro, and sometimes a rolling movement, as if the head were attached to the spinal column by a ball and socket joint.

There are also changes in the speech. The speech is usually described as ataxic or irregular, some words coming out suddenly in an explosive manner, while others are spoken slowly. The voice is more or less monotonous, and sometimes there is sort of a scan-

ning speech, the words being distinctly cut off and separated one from the other. Articulation is more or less disturbed. The inco-ordination may affect the muscles that move the eyeball. This is shown by a rapid to and fro movement of the eyeballs, which is known as nystagmus. This inco-ordination of movement, as above described, affecting the various parts of the body, is the most important symptom of this disease. As the disease progresses, this inco-ordination increases, and sooner or later there develops a muscular weakness along with it, so that in a few years—from three to six years after the beginning of the disease—the patient becomes practically helpless, as a rule, and is usually unable to walk. The muscular weakness also affects other parts of the body, as the muscles of the trunk, muscles of the arm, etc.

In the feet and legs this muscular weakness leads to the development of contractures of certain muscles and deformities of the toes and feet. The heel is apparently drawn upward and the foot shortened from before backward, as though one attempted to press the toes and heels together by force. The arch of the foot is increased upward and the sole of the foot is hollowed out. The toes are extended at the first joint where the toes join on to the foot, and flexed at the other joints, producing what is sometimes called a hammer foot, from its hammer-like appearance. This deformity of the foot sometimes comes on early and progresses and becomes worse as the disease advances.

The weakness of the muscles of the trunk also allows lateral curvatures of the spine, which is called scoliosis. It should be understood that these deformities of the foot and spinal column are the result of muscular weaknesses.

The knee jerk in these cases is diminished or lost, and it is usually lost early in the disease. This is an important symptom. The superficial reflexes from the sole of the foot and from other parts of the skin are usually present and normal. Babinski's plantar reflex is often present. The tendon Achilles reflex is usually absent.

Sensation is not disturbed as a rule, either subjectively or objectively, although in some cases there may be some pains in the legs, and even some slight loss of sensation. This loss of sensation comes usually late in the disease, and the pain is thought to be caused by a leptomeningitis.

The sphincters which control the bladder and the rectum are not involved as a rule, and when they are, this occurs usually late in the disease.

The trophic symptoms are not much in evidence in this disease. The muscles from the beginning are usually small and muscle tone is reduced, and as the disease develops, the muscles finally become paralyzed and shrunken, some of them, at least.

The general nutrition of the body is below the normal; the patient is usually underweight, more or less anemic, but there are no bedsores or other signs of trophic disturbance except as above mentioned. The feet and legs may be cold, often cyanotic, as the result of poor circulation. This is apt to come late in the disease.

The mental faculties are usually not af-

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ected, although they may be late in the disease. However, earlier in the disease there may be a black, apathetic expression on the face which would indicate a mental weakness. This is due to the relaxed condition of the muscles of the face, and is really not a sign of any mental disturbance.

The tendency of the disease is to progress and become worse as time passes. However, there may be intermissions of greater or less duration. Sometimes there are long intermissions in which the disease does not seem to make any progress. The disease runs a chronic course, extending, as a rule, over fifteen or twenty years' time. Cases have been reported where the disease ran its course in two years, and other cases where it extended over forty-six years' time; yet most cases run their course in from fifteen to twenty years.

As above stated, the disease is usually ushered in by some infectious disease, and it is an interesting fact to note that it is usually terminated also by some infectious disease. The body of these patients becomes weakened by being in this chronic state of invalidism so that they are an easy prey to various infections which may beset them, and which usually terminate the disease.

The description given above, as the title indicates, refers to what is usually described as hereditary ataxia, or more specifically, *Frederich's ataxia*. There is another form of this disease in which the symptoms are somewhat different from the above. The principal differences are as follows: In some cases the disease appears later in life, usually after puberty.

Second.—Knee jerk and the deep reflexes, instead of being diminished or lost, as in the case of *Frederich's ataxia*, are present or increased.

Third.—In addition to the above, in many cases there is optic nerve atrophy and paralysis of the oculo-motor or other cranial nerves. In that class of cases in which these last mentioned symptoms are present, some writers, particularly *Marie*, have put them together in a class by themselves and described them as hereditary cerebellar ataxia.

In addition to these well-marked types, *i. e.*, the *Frederich* type and the hereditary cerebellar ataxia type, there are other what may be called transitional forms, so that when all these cases are taken together and studied carefully, there seems to be no very good reason why they should be separated into two classes or more than two classes, and there are many good observers and authorities who describe all these various forms under the one head of hereditary ataxia, some of these cases conforming to *Frederich's* type, others to the cerebellar type, and others still to the transitional type. In all of these cases the hereditary element is prominent, and the symptoms for the most part are very similar, although there are some variations, as above indicated. A number of these cases of the cerebellar type have been reported by *Frasier*, *Nonne*, *Marie* and others. In a few cases of the cerebellar type it has been observed that the cerebellum is shrunk and the disease seems to spend its force principally upon the cerebellum, whereas in *Frederich's* type the bulk of pathological changes seem to be in the spinal

cord and particularly in the posterior columns of the spinal cord; but here again there is no well marked boundary line to separate these cases one from another, even from a pathological standpoint. It is, therefore, proper to consider them as different manifestations of the same disease.

DIAGNOSIS: This disease should be diagnosed from locomotor ataxia or *tubes dorsalis*; from so-called hereditary cerebellar ataxia, the disease which by some writers is given a place by itself, but by others is considered really simply a modified form of the disease that we are now discussing. The writer thinks it better to consider cerebellar hereditary ataxia and hereditary spinal ataxia, so called, as one and the same disease, simply in one case certain symptoms being more prominent and in the other, other symptoms more prominent. It should also be diagnosed from chorea and from cerebro-spinal multiple sclerosis.

PROGNOSIS: The prognosis of this disease, as far as cure is concerned, is not good. No case is on record where a cure has been effected. As above stated, the disease usually runs a course of from fifteen to twenty years. Cases are on record, however, where it has extended for as many as forty-six years. It is usually terminated by some acute infection. Much can be done, however, to make the patient comfortable, and to hinder the onward progress of the disease.

TREATMENT: When the physician discovers a disease of this type in a family, the nature of the disease should be explained to the father and mother; should more children be brought into the family, the liability of the disease occurring in children that may be born later should be pointed out. It is not desirable, of course, to bring into the world children who are liable to be afflicted with a disease which cripples their usefulness and lessens their happiness in life. When it is known that other cases are present in a family, it is not advisable for the mother to nurse her children at her breast, as it is claimed by some that the disease is transmitted in this way. It is better to feed the child artificially with a bottle.

The greatest care should be taken in the physical and mental life of these children to avoid any strains or stresses of any kind. Physical and mental work should be carefully regulated and excesses of all kinds avoided. The child should live in the open air as much as possible, have good, nourishing, wholesome diet, should be careful not to over-exercise. Moderate exercise should be taken. It is well to remember that the

nervous system which has to do with the controlling of movements of the body is weak and is not able to direct the exercises as the nervous system of a healthy child might.

Tonic hydrotherapy will improve the nutrition of the body and will improve the tone of the nervous system.

The alimentary canal, including the stomach and bowels, should be carefully looked after. Stimulating food, tea, coffee, alcohol, tobacco, should not be used by these subjects in any form.

General massage and electricity applied to the muscles improves the nutrition of the muscles and the nervous system. A child suffering with this disease should have a month or six weeks' treatment each year in a well-equipped institution where hydrotherapy, massage and electricity can be intelligently applied, or if for any reason the advantages of an institution of this kind can not be had, these measures can be used to a degree, at least, in the home of the patient with good results. Treatment should always be taken under the direction of an intelligent physician, so that it will not be overdone, and so that the nervous system of the child will not in any way be overtaxed by the treatment.

QUESTION BOX DEPARTMENT

EACH Monday evening Dr. Kellogg conducts a Question Box talk in the Sanitarium parlor, where all guests and patients are at liberty to submit questions relating to health and health topics.

Q. How do lemons and oranges go with milk when taken at the same meal?

A. They simply form small curds, which are more easily digestible than the hard curds which are formed by the gastric juice; so they do no harm at all.

Q. For a man who has hyperacidity of the stomach and uses tobacco, which is less harmful, the smoking or chewing?

A. Well, now, that is very much the same as to ask of a man who is inclined to theft, Which is the worse, burglary or highway robbery? It is the same kind of thing. I should say that the best thing for this man would be to eschew the whole thing.

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Applicants received whenever vacancies. The next class will be organized the first of April, 1910. For full information address

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Battle Creek, Mich.

Q. What digestive juices are lacking in a case of intestinal indigestion?

A. There may be a dilated intestine and stasis of food—food remaining too long and undergoing putrefaction. That is really the principal trouble.

Q. Are there any special symptoms present in a case of this kind?

A. The symptoms of intestinal autointoxication. The reason why digestion is impaired is because of the enormous quantity of poisons and the putrefaction going on there, interfering with secretion of the normal juices.

Q. How many vegetables should be eaten together?

A. If one takes two vegetables, it would generally be enough, I should think. We need the salts, so we ought to take some vegetables. The potato is perfectly wholesome and proper for the average invalid.

Q. In what way does neuralgia differ from rheumatism?

A. Rheumatism is a disease which infects the hard tissues of the body, the cartilages, the ligaments around the joints, the fascia, the sheaths, the muscles; while neuralgia is a disease which affects the nerves. Really the same poisons that make rheumatism may also make neuralgia or neuritis.

Q. Would you advise sleeping on the stomach to avoid dreaming?

A. It is a good plan for many people to lie upon the face in the prone position, and with a little pad or a small pillow beneath the stomach. It is a very good plan indeed. People who have dilated and prolapsed stomach will find very great benefit in sleeping in that way. The pressure of the stomach up against the backbone compels it to empty itself.

Q. How much time should one give to meals in order to fletcherize properly?

A. It depends upon the teeth somewhat. If one has good, sound teeth, and will chew industriously, and not stop to talk too much, one ought in thirty minutes to be able to chew his meal very thoroughly. In fact, twenty minutes will answer very well if one is industrious, and learns how to economize his time, and to keep the food where the teeth will do the most good to it.

Q. Are acid fruits good for persons who have gas in the intestines?

A. They are very good for such persons, because their acid stimulates the intestine. The gas in the intestine is due to the too long retention of fermentable foodstuffs. The quickest and best remedy for persons suffering from gas in the intestines is to see that the bowels act more frequently. Two or three movements a day will very soon cure this whole trouble. It is because of the material that is retained there undergoing putrefaction and fermentation. Just simply hasten the movement of the undigested foodstuffs along the intestine a little more rapidly and the difficulty will wholly disappear. Acids of all kinds encourage intestinal activity.

Q. What is the cause of neuralgia?

A. Poisoning of the nerves.

Q. Why doesn't the stomach digest itself?

A. That is one of the modern miracles that can be explained only by the fact that there is a beneficent Intelligence that cares for us every moment of our lives, and protects us, even against the evils that would happen from the processes within our own bodies,—the same Power that keeps the heart beating while we sleep, that watches over us during all our moments, conscious and unconscious,—that is the Power that prevents the digestion of the stomach by the gastric juice. There is no physiologist who has ever given any satisfactory explanation of it. It can not be explained any more than the heart action can be explained. It is one of the miracles that we see all about us. It is a miracle that we live, and there is scientific truth in that statement of the apostle Paul, that "in Him we live and move and have our being." That is a scientific statement that is sustained by the evidence of the most authoritative scientific men at the present time; and no better explanation can be given.

ARRIVALS

THE list of arrivals at the Battle Creek Sanitarium for the week ending April 17 is as follows: H. C. Haight, O.; Susan McWhirter, Indianapolis; Rolla Swank, O.; Dwight J. Turner, Toronto; Fred C. Dinsmore, Pa.; J. W. Over, Mrs. K. S. Over, J. B. Over, Pa.; Mrs. W. R. Reed and daughter, N. Dak.; Mrs. S. C. Smithwick, Chicago; Mrs. Richard Lieber, Indianapolis; Mrs. Jas. B. Arnold, England; D. R. McCollum, O.; John Jasberger, Pa.; Mrs. W. H. McDull and Miss Florence Neff, Ill.; Dr. C. C. Rozelle, Ind.; R. C. Rowe, Ind.; Louis Lindenthal and Sam Selch, Chicago; Jas. E. Gastman and Wm. H. Lieb, New York City; J. M. Rhodes, Jr., Ind.; Mrs. O. T. Goodwin, Kan.; Miss Uhla King, Mo.; J. H. Carlson, Minn.; Mrs. N. McMillan, Chicago; Chas. P. Wheeler, Mo.; F. E. May, M. D., Mich.; Mrs. Mary E. Ryder and Clyde H. Ryder, Ill.; Mrs. W. D. Smith, Jr., Mich.; W. A. Berery, Detroit; Chas. A. Reeve, Indianapolis; Chas. E. Kelley, New York City; W. P. Phillips, Toronto; Emily May Ely,

Mich.; Ralph E. Wilhoit, Ill.; Mrs. R. Tate, Ill.; Mrs. Rose Svensson, Sweden; Mrs. H. L. Ritson and Richard Humes, O.; Aug. Rosenberger and Mrs. Anna Schindler, Ind.; Mrs. David Herr, O.; W. L. Wilcox and wife, Ill.; C. N. Bradley, H. E. Burr, Chas. M. Sapp, Ill.; Mrs. Chas. D. Stevens, Wis.; Mrs. F. J. Boyd, Mich.; Mrs. A. E. Phillips and two children, Chicago; Mrs. J. A. Noble, Mich.; Wm. Bishop, Mich.; J. P. Jones, O.; Benj. Wilk, Chicago; Mrs. C. G. Stevens, Chicago; F. M. Haas, Kalamazoo; Mrs. C. B. McChin, Ia.; Miss Theresa French, City; Orrin C. Jones, Vt.; Ross W. Sanderson and wife, O.; A. Lehman, New York City; A. C. McGlone and M. F. Whitstone, Minn.; C. E. Cowman, Japan; L. N. McMer, Chicago; A. Long, Jr., Mich.; Mr. and Mrs. G. A. Gleam, Canada; Mrs. A. W. Childs, Miss M. C. Taylor and Miss Lily Sweet, Canada; J. H. Hendrick, New York City; H. Zarlek, Chicago; W. K. Morley, Mich.; Otto C. Bormann and August Hecker, Ind.; E. M. Ware, Minn.; T. C. Chamberlin and wife, Chicago; E. W. Rodefer, O.; F. D. Harsh, Des Moines; Mrs. T. B. Hough, Ill.; Mrs. F. Jordan, New York City; J. M. Barker, Ind.; J. P. Dean, Wis.; Mr. and Mrs. C. N. Robertson, Kan.; David Paulson, Ill.; M. M. Monigan and Edgar Monigan, O.; P. F. Hookell, Chicago; F. G. Gilbert, Mass.; Mrs. M. D. Jones, O.; Mrs. Ira Torsden, Ia.; J. J. Newberry, New York City; Miss Morna Eldred, City; Jacob Fishe, Ind.; W. T. Donovan and wife, Brooklyn; Mr. and Mrs. Paul Wadsworth, N. Y.; Mr. and Mrs. W. R. Jones, Va.; Miss Woodward, Pittsburg; Mr. and Mrs. B. E. Taylor, O.; Jeanne M. Bouvet, Chicago; G. R. Buck and Louise Buck, Mich.; O. H. Jennings, Detroit.

Just a Word To Our Patrons

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SANITARIUM LAUNDRY

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ONE SPECIAL FEATURE of this school is that students are given an opportunity to meet a large part of their expenses by work along lines which aid them in their studies.

**The Battle Creek Sanitarium School
of Health and Household Economics**

**BATTLE CREEK
MICHIGAN**

News and Personals

Miss Florence Jordan, of New York City, is a newly arrived patient at the Sanitarium.

Mr. and Mrs. W. T. Donovan, of Brooklyn, have entered the institution for a course of rest and treatment.

Miss Jeanne M. Bouvet, of Chicago, an old friend and patient of the institution, has returned for further rest and treatment.

Mr. G. R. Buck and daughter Louise, of Lapeer Mich., are stopping with us for a few days, visiting Mrs. Buck, who is a patient.

Among the doctors who have registered with us during the past week, we notice the following: F. E. May, M. D., of Edwardsburg, Mich., and Dr. C. C. Rozelle, of La Grange, Ind.

Dr. J. F. Morse, of the Sanitarium medical faculty, said good-bye to his friends on the 14th inst. as he set out on his European journey. He expects to be absent some months. He will represent the American Medical Missionary College and the American Medical Missionary Board in the great missionary congress that is to convene in Edinburgh in June.

Miss Anna Erierson, who has devoted many years of her life as a missionary among the natives of India, under the American Scandinavian Board, recently left us very greatly

improved, and expecting to return to her work after spending the summer among her native mountains in one of the most picturesque portions of Sweden. Miss Erierson is a most gifted and consecrated worker and carries with her the best wishes of a multitude of friends who had the pleasure of her acquaintance here.

Rev. J. P. Jones, D. D., of Madura, India, who has spent thirty-one years in mission work there, was a guest of the Sanitarium for a day or two last week on his way to the Laymen's Missionary Convention at Grand Rapids. Doctor Jones has been a prominent speaker at the great series of Laymen's Missionary conventions held throughout the country since last autumn. He is a speaker of unusual power and interest. Later he expects to return with his wife to make a longer visit.

Sunday evening, April 17, a meeting was held in the Sanitarium chapel for the purpose of organizing a society of Christian Endeavor. A constitution was adopted, to which thirty charter members subscribed their names, and the following officers were chosen: Mr. W. C. Kellogg, President; Miss Nina Smith, Vice-President; Miss Elizabeth Neal, Corresponding Secretary; Mr. C. S. Quail, Recording Secretary, and Mr. Fred Wildenburg, Treasurer. An enthusiastic meeting was held with good prospects for future success.

The Sanitarium chapel pulpit was occupied last Sabbath by Rev. J. P. Jones, D. D., who has labored in Southern India for many

years under the American Board (Congregationalist). His theme was "India's Need of the Gospel." After giving full credit to India for producing the great religious systems of the world, outside of Christianity, and for originating the most profound systems of human philosophy, he said that India has the greatest need of the Gospel of Christ, because the thought of India is remote from the real wants of her people. Her religions afford no hope or comfort to the most needy classes, and her philosophy has nothing for the man and woman who are helpless and dependent. There is no door of hope for the lower classes.

Those who attended the Laymen's Missionary Convention in Grand Rapids during the first part of this week report that the meeting was of a very enthusiastic and interesting character. The principal missionary speakers were Dr. M. D. Eubank, of China, Rev. J. P. Jones and Doctor Clancey of India, and Rev. Isaac T. Headland, of China. Bishop McDowell, of Grand Rapids, and Doctors Hopkins and Newell, of Chicago, also participated in the speaking. The banquet on Monday evening was so largely attended that it was necessary to serve it in two halls, the same speakers appearing in each place. On account of the demand for conventions from various cities, double the number originally planned have been held, and they have been the means of arousing a hitherto unknown interest in missionary operations. The final convention of the series will be held in Chicago May 3 to 6 and promises to be the most significant religious meeting ever held in this country.

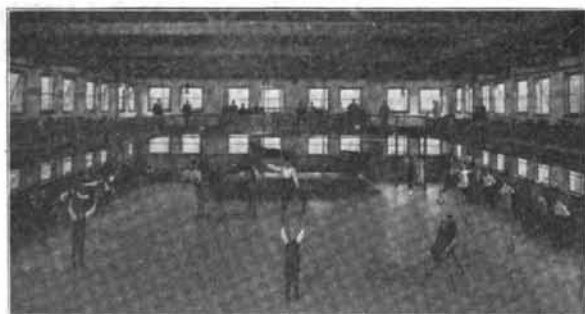
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Terms Tuition, full year, \$100 including the Summer School. Tuition for Fall, Winter and Spring Terms, \$75. Tuition for Summer School alone, \$35. Board \$3.00 to \$3.50 per week.

Self-Support Unusual opportunity is presented by the Sanitarium for earning money toward expenses.

Application for entrance for Summer and Fall Terms should be made this spring. An illustrated announcement containing further details will be sent upon request.

Address: WM. W. HASTINGS, Dean,

NORMAL SCHOOL OF PHYSICAL EDUCATION Battle Creek, Michigan

THE BATTLE CREEK IDEA



Vol. III No. 21

BATTLE CREEK, MICH., APRIL 29, 1910

Price 2 Cents

HOW THE SANITARIUM FEEDS ITS GUESTS

A Few Facts in Regard to the Bill of Fare Provided at the Battle Creek Sanitarium

THE Battle Creek Sanitarium diet is no starvation. Set that down first. The selection of foods is not done to suit some fad or
(Continued on page three)

Spring Fever Causes and Cure

As Stated in a Lecture to Patients and Guests in the Sanitarium Parlor by A. J. Read, M. D.

I WILL tell you to-night a little something about the causes and cure of spring fever. This disease is a very common malady, and,
(Continued on page five)

HUMAN TELEPHONE WIRES AND HOW THEY WORK

Nervous Pain does not Indicate Diseased Nerves—They are Reporting Trouble Elsewhere

THE function of the nerves is to report things, as the telephone wires carry messages; that is what nerves are for—to carry messages. Nerve fibers have their origin in



THE SANITARIUM KITCHEN

the brain or in the nerve centers. Those originating in the brain extend directly to the parts controlled by them or to nerve centers which serve as central or relay stations for the more general distribution of nerve impulses or messages.

Impressions or sensations of pain are felt through the nerves. Were there no nerves there would be no sensible pain. But pain in a nerve does not mean there is anything the matter with the nerve. So many people think because they are nervous, there must be something the matter with their nerves. If a man has any kind of nervous symptom, he thinks he must have a nerve specialist to treat his nerves. There is not a particle of sense in that. Because a man feels pain, or feels weary, is no indication that he should have somebody treat his nerves. Suppose, as an apt illustration of that, and one that is perfectly analogous, if some one should call you on the telephone, and you should hear a shout coming over the wire, "Your house is afire!" you would not say, "Send for somebody to fix this telephone right away; it is out of order." There is nothing the matter with the telephone when somebody shouts over it that your house is afire. So when a nerve is expressing pain, it is simply announcing that there is something wrong somewhere. There is nothing the matter with the nerve.

Pain that is not due to inflammation, or some pressure, is really

A CRY FOR BETTER BLOOD

The blood is the healing power of the body. The blood is the agent which feeds all the tissues; it is the creative tissue of the body, a veritable traveling market that passes through all the tissues and furnishes to each what it needs. A nerve that is expressing pain is simply crying out for better blood. That is what a headache or a backache means, generally. It is what neuralgia always means. It is not because there is not enough blood that the nerve cries out, but it is because impure blood containing poisonous matters is brought in contact with it. Half an hour ago I met a man who was suffering pain. I did not have to be told the cause of his pain. The moment I came near him I smelled it. The olfactory sense was quite a sufficient guide. It was not simply his breath, his whole body was pouring out these emanations. It meant there was something rotten in his body, and the whole body was saturated with these putrefactive products. That is the most common cause of pain in a nerve.

PAINS IN THE BACK

Suppose a nerve reports to you that you have a backache,—you say, "Doctor, there is something the matter with my back. Can you not put on some liniment or give me morphia or something to stop this pain in my back?" You perhaps get something to benumb the nerves, but it does nothing at all to reach the cause. It is not likely the cause is merely in the mind, though I have seen that kind of cases. You are not going to be cured by any sort of hocus pocus, or made to believe you are well when you are not well. The thing to do is to find out what is the

cause of that pain in your back. Nearly always it is a congested condition of the abdomen. There is too much blood in the bowels, stomach, liver, or spleen, so they report it in the back. The same nerve that extends to the stomach sends also a branch to the back, and the nerves that send a branch into the liver also send a branch to the back under the shoulder-blade. When there is a pain there, the doctor immediately thinks about the liver. One having pain under the shoulder-blades may have an inflamed gall-bladder, or may have gall-stones, or a congested liver, or there may be trouble with the bile ducts. Therefore the doctor examines the liver.

I met a lady the other day who had a severe pain between her shoulders and up and down her back. I asked, "What do you think the trouble is?" "Well, doctor, I think there is something the matter with my spine. I had an osteopath treating my spine for six months, but he did not do it any good. He only helped it a little, saying there was a vertebra out of place." I made an examination, and sure enough there was one out of place, which we soon put in place, but we did not have to wring, twist, and massage or push and percuss her spine to do it; we had her straightened up, and then the vertebrae were in place. Then we found sore spots on either side of the spine, but not in the spine itself. But we made an examination of the front side of the spinal column. We found a sore spot at the solar plexus and another at the umbilicus. In other words, the lumbar ganglia were very sore.

THERE ARE TWO SIDES TO THE BACK

There are two sides to the back, the back of the back being most accessible, but the front of the back is where the real trouble usually is. There is a row of sympathetic ganglia that run up and down the spinal column, and they are in sympathy with the stomach, liver, spleen, pancreas, and intestines. When we stop to think of the bad usage that the stomach receives, together with the liver, it is not at all surprising that there should be irritation about those regions, and that the nerves connected with them should become sensitive. The stomach itself, however, is fortunately for us, very little sensitive.

Not long since, while operating on a man's stomach, I had taken the stomach out from the abdomen and was working on it, had made an incision in the stomach, and had to take up the intestine and join the two together. While I was doing that he woke up. I went on about my business, and he did not apparently know anything was happening to him at all; he did not feel a particle of pain. He was a very feeble man and I did not wish him to take any more anesthetic than was really necessary, because the anesthetic was the principal danger from the operation, so I allowed him to wake up. He began to talk, and did not know there was anything the matter with his stomach. I was making stitches in it as fast as I could and he felt no pain.

That is nothing new. Surgeons often do that when they have that kind of a case. It does not hurt the stomach to cut it. If it did, people could not swallow horseradish,

mustard, pepper, and pepper sauce and those other things that are frequently eaten in such quantity with impunity. If the stomach were sensitive, it would give the same pain that it would to put any of those things into the eye. Suppose a man should take the mustard which he spreads on his beefsteak, and put it on the skin over his stomach, making a plaster of it, it would raise a blister. It makes just as much irritation inside as outside, only one does not feel it in one's stomach.

DRINKING PEPPER-SAUCE

I saw an old toper some time ago, fill a wineglass with pepper-sauce and drink it off. I said to him, "How can you do that?" He said, "Well, I want to take something that I can taste. I take that every day before I eat my dinner to kind of warm up my stomach." Now just think of what a state his stomach must have been in! That is the way people get catarrh of the stomach, congestion of the stomach, ulcers, and all sorts of troubles by the use of artificial stimulants.

It is not any wonder that such people have pain in the back now and then. The sensitive nerves are in the skin, not in the stomach; so when the stomach is sore and becomes irritated you are much more likely to have pain in your back than in your stomach. In other words, the pain is felt on the back side of your back instead of the front side. It is the same way when the bowels get out of order and cause a headache. One does not have his head trephined because the bowels are inactive. The bowels are congested when they are inactive, and poisons are formed, and are carried to the brain; the brain being sensitive, the cells and nerve centers become irritated; then there is pain in the head. So, as I said before, a nervous disorder is simply the nerves reporting something wrong somewhere, not with the nerves, but with some other part; because when the nerves really are impaired they can not report. When the telephone wires are broken down, the telephone does not report anything. When the doctor examines your foot and puts a pin in the bottom of it, and you do not feel it, then there is something the matter with the nerves. When you go to the doctor and say, "Doctor, I feel griping sensations running up and down my legs, and I feel cold sensations up and down my spine; I feel creeping and crawling all about me when there is nothing around," that means, not that your nerves are necessarily diseased at all, but that your nerves are simply reporting that something is going wrong somewhere.

You have a headache, or neuralgia,—the trouble is not with your nerves, they are simply doing their duty. Nervous symptoms, so called, are simply the nerves reporting something wrong with the stomach, liver, intestines, or somewhere else, but not with the nerves themselves.

Therefore, let us follow a rational method in guarding our health, and by thus recognizing the warnings of nature and co-operating with her, secure for ourselves the greatest degree of efficiency.

SANITARIUM FEEDS ITS GUESTS

(Continued from page one)

fancy. The most careful experience and the most accurate demonstrations are back of every dish that is placed upon those tables, and the dictates of the most thorough scientific investigation are faithfully followed by those who have in hand the arranging of the menus.

AT LEAST THREE CONSIDERATIONS are taken into account in this work. In the first place, it is recognized that food to be nourishing must be agreeable to the taste and attractive in appearance. It must be received with gust, and not with disgust; it must be relished, not forced down; it must please the eye and the palate. Otherwise, it is just as well not to eat at all. It is the pleasant impressions that the sight, smell, and taste of food produce that stimulate the flow of "appetite juice," which is essential to the digestion of food. Consequently, care is taken to have the food attractive in taste and appearance as well as in savor, and to have it served in a delicate and pleasing way. The appearance of the Sanitarium tables is most inviting and pleasant.

The next consideration is to see that the food is nourishing and harmless, that it will serve its legitimate end in strengthening the eater, and be adapted to his special needs. In order that this may be so, each patient is advised as to the quality and quantity of food that will be best for him. The calories or food units of each portion of food served are carefully computed, so that there is no occasion for over- or under-eating.

The third consideration is the preparation of the food, of which we will speak later.

It is well understood by our readers that NO MEATS ARE SERVED IN THE SANITARIUM and the exclusion includes fish and fowl. At the same time, the food is not "vegetarian" in the strictest sense, since it includes milk, cream, butter, and eggs. The milk supply is subject to the closest scrutiny in the dairies from which it is brought. The milk is tested frequently in the laboratories, and is thoroughly sterilized. Cream is used in quite large quantities, indeed in larger quantities than milk. The butter used in the institution is all made on the premises and the process is such as to prevent the entrance of any sort of impurities or bacteria. The butter is undoubtedly pure, sweet, and wholesome. This process involves great pains, but it is complete.

The eggs are stamped with the producers' name as a guarantee of their freshness. They must be absolutely fresh in order to find a place on the tables or in the food.

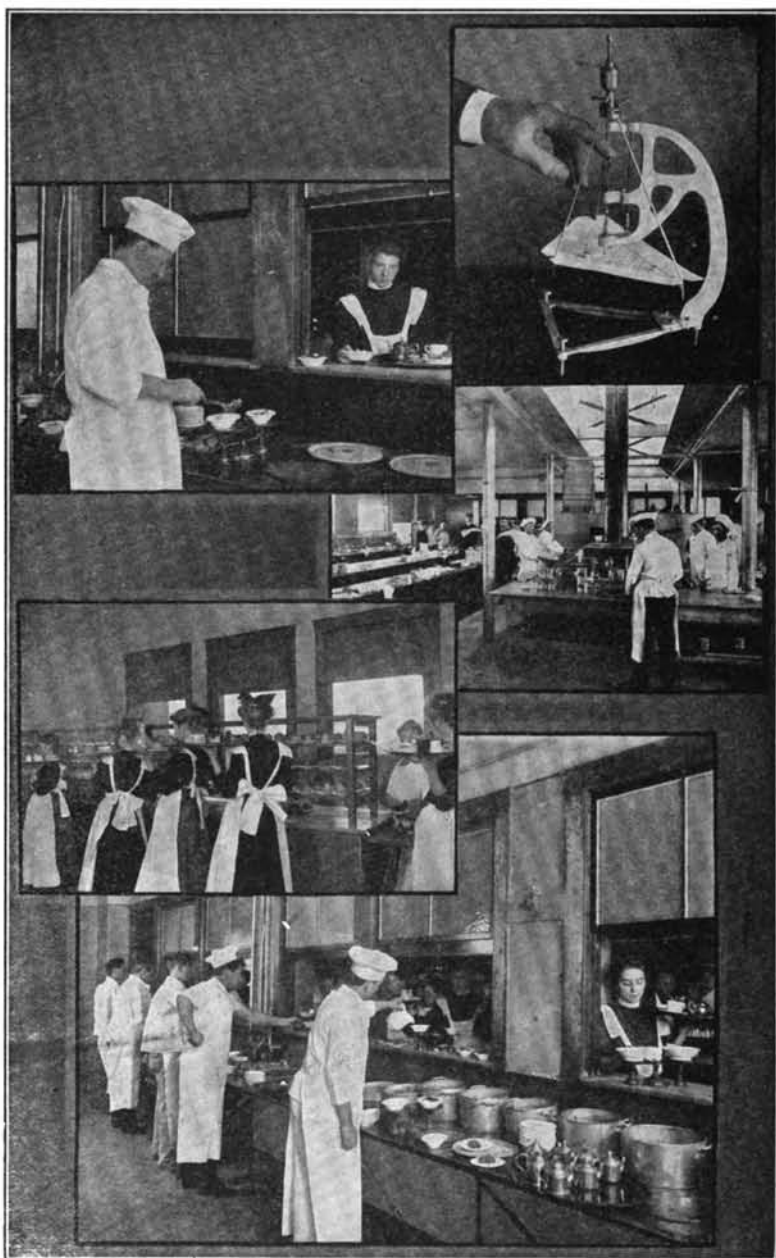
For those who feel the need of meats, substitutes are provided in preparations of nuts compounded with other ingredients, which render them digestible, nutritious, and toothsome. Some of these preparations bear a strong resemblance in taste and flavor to flesh foods, and at the same time are absolutely free from the dangerous and deleterious matter found in slaughtered animals. There are none of the poisonous substances that dead flesh is certain to contain, and one may eat of them with the satisfaction of knowing that none of his fellow creatures has been called upon to shed its blood and

give up its life for the purpose of furnishing food for him.

Fruits and cereals form the staple reliable articles of food on the Sanitarium bill of fare, being supplemented by nuts and vegetables. In order to furnish an agreeable variety of these articles, every part of the world is made to contribute its production. Our own country, fortunately, is able to furnish the best foods in the world, and these are so abundant that we are actually sur-

rect and conscientiously prepared, and are not to be classed with the many imitations that are unscrupulously and unscientifically compounded and manufactured and placed upon the market for the one consideration of gain. The bread used in the institution is made in our own bakeries under careful supervision of the medical department.

Fruits, fresh and canned, and fruit juices, as well as dried tropical fruits, are always found on the tables in free abundance. In



SERVING FOOD

rounded by the means of good living almost as we are provided with air to breathe and water to drink.

The so-called cereal foods found on the Sanitarium tables are manufactured with the one idea of health-promotion and strengthening, and not for commercial purposes solely or mainly. They are scientifically cor-

one year as much as 40,000 gallons of apple juice was expressed, sterilized and sealed up for use. The apples for this purpose are carefully washed, cut open, and all defects are removed before the grinding. The juice is placed in large jugs subjected to a heat of 176 degrees for some time and then hermet-

(Continued on page four)

The Battle Creek Idea

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VOL. III APRIL 29, 1910 No. 21

FEARFULLY AND WONDERFULLY MADE

SUCH is the exclamation of the sacred writer as he contemplates the construction of his own frame and system. The human body is the masterpiece of God's creation in construction, in powers, in adaptability, and in every other particular. The depths to which the most powerful microscope can enable us to explore does not reach the extent of the apparently boundless regions of wisdom and goodness displayed in the construction of the human body.

The body is rightly regarded as something measurably apart from the real man. It is a man living within a body, an house of flesh. The man who inspects the house in which he lives is sure to be profoundly impressed with what he beholds of the "house beautiful." It is the aim of the modern builder and architect to provide in our imobile houses, as nearly as possible, the same conditions as characterize our bodily houses. In the latter every department is under the immediate and direct control of the man within. The house is warmed with a current of fluid flowing to all parts; the telephone system is most complete and there is no waiting on "central." The man is in constant communication with all parts of the house and is notified instantly when any danger appears, or accident happens.

Ordinarily, nothing occurs without his knowledge and will, and he governs every motion and activity except those intensely vital functions which it would not be at all safe to intrust to his care. He feeds his own furnace, controls the ventilation and the heat, has charge of the decorations and housecleaning. It is his business to see to it that the fuel is right, and that the ashes and refuse are faithfully removed. His house is not a rigid structure of timbers and mortar that can not be moved without tumbling down; its activities are simply wonderful. It is capable of almost any posture, and any kind of physical effort; it is not only a complete dwelling, but a wonderful mechanism, whose uses are numberless and past finding out.

The man has the care of this machine to a great extent.

Some men admire the mechanism of an automobile, or a phonograph, or the possibilities of the telephone, and rightly too, but how insignificant are the powers of these contrivances of human invention as compared with the versatile and exquisite powers of the human body! Note the great ships that plow the ocean with their thousands of tons of ponderous weight. Watch one of those mighty steamers plunging through the waves and tempests at twenty-five miles an hour; see that express train dashing over the rails at sixty miles an hour; all these terrible manifestations of energy are controlled perfectly by one small human hand.

We may well stand in awe of the wonderful house in which we live; and yet how little attention is paid to it, how few at all realize the responsibility intrusted to them in the care of this heaven-made dwelling. How we waste its powers and encroach upon its vitalities, neglect its care, and allow it to run down, become impaired and enfeebled, never giving it a sober thought until at last we find our beautiful home just ready to go to pieces. It is the part of wisdom to give more attention to the care of our bodies than most of us have done. It is not too late to begin now.

No one would at the present day think of entering upon any pursuit without a course of study and preparation. The successful farmer must now be an educated man. The man who cares for bees, or chickens, or a garden, must read and study and experiment with all pains in order to succeed. How much more, then, shall we who can live at all only as our bodies live, and can succeed only as our bodies are preserved, have an intelligent and thoughtful care of them. Read, study, ponder. We can not exchange our old worn-out bodies for new ones of a better breed; but we can improve the old ones. We can take good care of what we have, and as God gave it to us it was all right. Let us seek to keep it sacredly and with care.

THE EFFECT OF PROHIBITION UPON BATTLE CREEK

BATTLE CREEK has had one year of experience under the prohibition law following the local option vote of April, 1909, and the question of how the policy succeeds is now a pertinent one, although one year is scarcely sufficient to furnish a complete demonstration of the problem.

From a report compiled from authentic documents and recently published, we gather the following facts: Total number of persons confined in the county jail has decreased by one-third as shown by the records, and in the matter of cash this has been a saving of over \$1.100 in eight months for the matter

of board alone, equivalent to nearly \$1,800 per year, and the saving for other expenses has probably been at least an equal amount. But this, of course, is the very smallest consideration. People go to jail for crime, and the reduction of crime and its attendant sorrows and calamities is the greatest gain of all.

The arrests in the city of Battle Creek during the months of May to December inclusive, in 1908 were 630, and in the same time during the prohibition regime the number of arrests was 539. Many of these, however, were due to a more rigid enforcement of the law during the last year; for instance, up to last year but very little attention was paid to the bicycle ordinance, while during the latter period mentioned above fifty-nine people were arrested for violation of that ordinance. Deducting the arrests made for violation of the bicycle ordinance from the report of the last eight months, there is a difference of 150 in favor of the "dry" period, or a decrease of about twenty-four per cent. The arrests for drunkenness and disorderly conduct during the last eight months in 1908 numbered 330, and for the same period in 1909, 227, and the police state that over one-half of the persons arrested for drunkenness during the last period came into the county intoxicated.

On May 1, 1909, forty-five saloons closed their doors in Battle Creek. Eight of those buildings are now vacant. One year ago there were five vacant stores on Main street in the saloon district and to-day but one. Two of the three city newspapers are now pronouncedly in favor of prohibition, while at the time of election the best that could be said of any of them was that they were neutral. The bank deposits of last year show an increase of nearly \$866,473, and the savings deposit increase is nearly \$97,000.

The business men, and especially the merchants, almost unanimously report favorably of the practical operation of prohibition. People are buying many more of the comforts of life, bills are paid more promptly, and business stands on a better foundation.

SANITARIUM FEEDS ITS GUESTS

(Continued from page three)

ically sealed, so that when it is to be used it is as fresh as when put up. Grape and berry juices are prepared similarly in large quantities.

Cream is used to quite an extent in the preparation of vegetables for the tables. The vegetable soups are pronounced very delicious by everybody who partakes of them. A sample menu accompanies this article, from which a fair idea of the character of the Sanitarium dietary may easily be obtained.

Something should be said of the cooking, for very much of the value of foods depends upon this. In the spacious kitchen shown on the first page of this paper the very best of order prevails, the room is on the upper floor of the building far above the basement where such work is frequently carried on.

The air is fresh and pure, and the surroundings most pleasant. The cooks are thoroughly trained in healthful cookery and heartily in sympathy with their work. In the cooking of food for invalids extra pains must be taken to have it done in a most careful manner to secure the very best results for the eater.

Menu

	French	Pastry	Salads	On.	Pudding
Cream of Lima Bean Soup	32	60	100	41	2
Tomato Soup	17	34	47	41	1
Hot Pilchard	41	60	44	24	11
Butterflied Prawn	25	60	15	24	1
Apple Fritters	13	60	60	14	11
Baked Potatoes	11	1	60	3	1
Cream Sauce	9	64	11	2	1
Baked Potatoes	9	25	60	34	1
Young Onions in Cream	6	60	10	3	1
Wax Beans	4	12	9	4	1
Beets in Apple Salad	14	60	15	44	1
Lettuces-Lemon	2	1	7	11	1
Whole Wheat Bread-1 slice	12	2	61	1	1
White Bread-1 slice	9	4	62	1	1
Cattle Graham Bread-1 slice	10	4	61	1	1
Breakfast Toast-two pieces	4	12	34	1	1
Toasted Grapes-Biscuit-two	7	1	62	1	1
Toasted Rice Biscuit	4	9	64	1	1
Fruit Saus	10	24	60	11	11
Butter	1	30	9	1	1
Apricot Sauce	4	9	71	34	1
White Cherry Sauce	4	6	60	3	1
Hot Honey	9	9	200	24	2
Apple Juice	9	9	100	6	1
Caramel Cereal-1 teaspoonful	1	1	9	1	1
Sugar-1 sugar-spoonful	9	9	25	1	1
Cream-1 pitcherful	6	107	12	24	11
Cream and Milk	12	142	34	6	2
Scalins Cocoa	13	49	24	5	11
Certified Milk	23	67	35	6	11
Hot Malted Wren	14	144	102	2	3
Yogurt Butter-milk	26	5	62	6	1
Lager Cakes	20	115	100	24	24
Fresh Strawberries	5	7	35	4	1

From the brief outline here given the impression that Sanitarium guests are in any danger of starvation, if any such impression has been entertained, will surely be banished, and a little experience at those tables will establish the fact that the guests are living on the very "fat of the land," in contradistinction to living on the fat of beasts.

SPRING FEVER

(Continued from page one)

at this time of year, is epidemic, and it has both natural and pathological causes. The natural causes of spring fever are quite numerous, and I am sure we have all felt them. They are external and internal causes. Among the external causes we might consider the changes in the weather from the cold, bracing winter, to the suddenly warm days of spring when vegetation begins to spring forth. We might also consider the psychological conditions, when the appearance of everything springing forth and growing from the earth, and the world generally rousing itself to life, begets a desire to get out of doors and down to work in the earth.

ALL FARMERS

We are all naturally farmers; we are all naturally made to take our living from the soil. We do not perhaps realize that only fifteen per cent of the population of the United States are farmers, and that this fifteen per cent of the population are supporting all the rest of us. We doctors, lawyers, merchants, bookkeepers, and so on are only depending upon and living off the farmers. The farmer has to feed us; he has to get out of the ground that which makes our living. It all has to come from that source; and it is no wonder that when the spring of

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the year comes on, and everything begins to spring forth and look beautiful that we feel arousing within us that almost irresistible impulse that makes us want to get back to the earth and make our own living first hand; and I really admire that much of the ordinary causes of spring fever, which manifests itself in almost everybody.

If that was as far as it went, it would not be so very bad. It is the same thing that makes the small boy feel like shouldering a fishing rod and getting out to some cool spot beside some lake and dangling a bent pin in the water all day without ever catching anything. It is the same thing that makes the schoolmaster have to record on his books a large number of absent marks during this season of the year. It is the same thing that causes the ladies to feel the need of new Easter bonnets about this time of year. It is a kind of general feeling of wanting to renovate everything and build everything all over new. The fact of the matter is, it is a response within our minds and that mental part of our make-up which impels us to express in tangible form our ideals. Unfortunately many of us who are cooped up in offices and in shops seldom get further than the ideal, and hardly have the opportunity to formulate that.

INTERNAL CAUSES

Besides the external causes, we have causes that are more closely associated with us, what we might call the internal causes. We all know that at this season of the year the fur-bearing animals shed their fur; and it is a time when there are changes taking place in the body. What is true of the animal creation around us is in part true of ourselves; there are metabolic changes naturally taking place in our bodies, after being housed up during the winter. Now, whether those changes are independent of the climate, independent of our experience during the winter, or whether they have to do more especially with our environment, it is very hard to tell, but it is certain that there are natural changes taking place that make us restless and uneasy during the spring of the year.

PATHOLOGICAL CAUSES

Then there are pathological causes of spring fever with which we have to deal, and which are the most important after all; and by recognizing these we can avoid a very serious attack of spring fever. The pathological causes of spring fever result from several conditions. First of all, they result from our being housed up during the winter. The most of us shut ourselves in during the winter; we are closed up in our houses, the air shut away from us to a great extent, perhaps a little air coming through the furnace that has had its vitality burned out of it, and we simply starve during the winter for want of fresh air. You look around among your friends and see pallid faces, and these pallid faces in most cases are not due to starvation for want of food; but are due to starvation for want of fresh air. Pale cheeks, a livid complexion, and lassitude result generally from shutting ourselves up, breathing vitiated air over and over again. And when we remember that we keep that up sixteen times a minute, day and night, and if there are two persons together in a room,

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that makes thirty-two times a minute that there is a vitiating stream sent out into the air that we breathe, we see it does not take very long to get the air poisoned, and by the time the long winter has worn away we get our blood stream so vitiated that we really suffer constitutionally from the results of it. We become pallid and weak, and metabolic changes are hindered; the vigor of the body is affected by breathing that impure air; and so when spring time comes along, we feel debilitated and are subject to fevers.

FEAR OF FRESH AIR

Most of us have a sort of aiophobia. Aiophobia is fear of air, as hydrophobia is fear of water. People are wonderfully afraid of drafts. The fact of the matter is that the danger from drafts has been cultivated, because our skins have gotten into an abnormal condition and are not able to react to drafts of cold air. It is unnatural that one should take cold from a draft of cold air. We are built to live in drafts. Nature has provided us with the mechanism to close up all of the pores of our skin just in the proper way so that a draft would not affect us. The savage is not afraid of a draft, and it is only because of our clothes-wearing habits, and our habits of housing ourselves that we come to have a dread of a draft.

Spring fever sometimes becomes a very serious menace. It involves a serious condition: Pneumonia is a precursor of spring fever that usually takes off a great many people just before spring fever comes on. Pneumonia usually is more prevalent during the months of March and April than any time during the year; because, first, the individuals have starved themselves for want of fresh air. They have cultivated a weak reaction to cold, and then in addition to that it is the season of the year when there are very strong currents of wind, and we are illy prepared to react to these currents of wind, because we have not lived properly during the winter; and so we succumb to pneumonia.

GET OUT OF DOORS

It is an excellent time of year to get out and take good long walks. Instinct is not so far off in prescribing that for us. In fact, I believe if we were very careful to cultivate instinct, we should find it a wonderfully safe guide. It is a very cheap doctor, and yet a very good doctor to have with you, a doctor that travels with you all the time. Instinct will tell you in most cases what to do if you learn how to interpret and understand her language. But the trouble is we have, so many of us, lived violent lives so far as instinct is concerned, that we can no longer recognize its voice. We eat all sorts of indigestible things, and sit incorrectly, and breathe impure air and thus cultivate disease in such a way that when spring time comes on and changes begin to take place in the body, we suffer from an extreme attack of lassitude and weakness that very nearly floors us.

At such a time many resort to the patent medicine-man, and hope by taking some of sundry "bitters" or other vile stuff to "purify the blood." But the way to help the blood is to correct the habits.

QUESTION BOX DEPARTMENT

EACH Monday evening Dr. Kellogg conducts a Question Box talk in the Sanitarium parlor, where all guests and patients are at liberty to submit questions relating to health and health topics.

Q. What causes very sore mouth and tongue?

A. Generally infection with germs, and lowered vital resistance, which permits germs to grow in the mouth.

Q. I have a prickly sensation in the fingers of my left hand and can not sleep on either side because my arm gets numb. What is the cause?

A. That may be a neurasthenic condition, it may be arteriosclerosis, or it may be defective circulation. The case should be investigated.

Q. What kind of home treatment would you suggest for a person who is troubled

with laryngitis every year at about this time of year?

A. I should say that person should spend the whole year building himself up until he gets up so high physically and vitally that the laryngitis germs can not reach him.

Q. Is it not a fact that beefsteak rare broiled is more easily digested than nut steak?

A. First, I will answer, No. As a matter of fact, protease digests in half the time of beefsteak. That has been determined by a laboratory experiment made first by my colleague, Doctor Riley, and it has often been repeated in our laboratory; so that will answer that question. But I must say further that it is not a question of digestion at all. We do not complain about beefsteak being difficult of digestion. You never heard me say that it is hard to digest. Beefsteak is an easily digestible food to persons who have sound stomachs and plenty of gastric juice. It is not that part of beef which is digested and absorbed that produces the difficulty. The great complaint against beefsteak is based upon what happens to that portion of the beefsteak which is not digested; and it is never all digested. Some portion of it

SPRING OFFERINGS

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Every Sunday during May a rate of one and one-half fare for the round trip to all points on our line West of and including Detroit and Pt. Huron. Tickets sold for all trains on Sunday, return limit being day of sale.

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Sanitarium,

Battle Creek, Mich.

goes down into the colon, and it decays there. It is the putrefaction of undigested portions of beefsteak that makes the mischief.

Q. What is there in meat that is bad for one?

A. Well, there is only one thing in meat that is at all good, and that is the protein; and there are other things that are poisons. There is uric acid, carmin, creatinin, xanthin, and hypoxanthin,—I could tell you thirty or forty more things that are there that you do not want; but the worst things of all are the things formed within the body by the putrefaction of the meat. The meat that is digested is disposed of, but that part which is not digested undergoes putrefaction, and is the cause of bad breath and malodorous perspiration; dingy skin and brown circles around the eyes are due to the brown coloring matter produced by the putrefaction of meat.

STEAMBOAT EXPRESS TRAINS

The new time card of the Grand Trunk Ry. System, effective Sunday, April 24th, announces the reinauguration of the Detroit - Grand Rapids - Milwaukee Daily Summer Service as follows: Leave Detroit 4:05 P. M.; arrive Grand Rapids 8:40 P. M.; Milwaukee 6:00 A. M. Eastbound, leave Milwaukee 9:30 P. M.; Grand Rapids 7:05 A. M.; arrive Detroit 11:50 A. M. 1w

ARRIVALS

FOLLOWING is the list of arrivals at the Battle Creek Sanitarium for the week ending April 24: Mrs. J. H. Parker, N. C.; Mrs. J. Levey, N. Y.; C. S. Morey, Detroit; Susy Barnes, Mich.; Katharine Hixson, Mich.; D. S. Murphy, Mo.; E. J. McLaughlin, Ia.; M. Barry, Ia.; F. D. Harsh, Des Moines; Mr. and Mrs. M. W. Mills, Mich.; Carl Burnett, Neb.; Mrs. H. L. Parmelee and Mamie Passolt, Chicago; Emily May Ely, Mich.; J. C. Hendrick, New York City; May Kennedy, Ill.; J. C. Norton and wife, Wash.; W. F. Childs and J. H. Norris, Boston; Mrs. Clara G. Quail, N. Y.; Mrs. Estella A. Schuyler, Mich.; Elizabeth W. Adams, W. Va.; E. J. Peters, O.; J. T. McCooey, Pa.; E. E. Covert, City; G. M. Crane and Mrs. B. F. Crane, Mich.; Mrs. Lee Gibson and daughter, Ky.; J. W. Bennie, Can.; Mrs. H. A. Briscoe, Ill.; W. A. Newman, Ill.; W. D. Smith, Jr., Chas. Welman, Mich.; Julia M. Adams and Ellen Adams, O.; Mrs. Mary Coburn, Indianapolis; A. E. Bismit, Ont.; M. Fooks, Miss.; Daniel Matthews and wife, Mrs. Mary Matthews, W. Va.; Mrs. Alvin Kusseron and Ed. Glocke, Wis.; Mrs. D. E. Hasey, Minneapolis; Mrs. J. H. Rogers, Ill.; Edwin Fraser, Ill.; John G. Garvin and wife, Ind.; J. E. Ender, Mich.; W. E. Goff, City; W. J. Dempsey and E. W. Dempsey, Ill.; F. R. McLanahan, Ind.; Chas. Flammer, Calif.; Lois M. Owens, Milwaukee; J. J. Newberry, New York City; Mrs. W. K. Rhoseman, O.; F. W. Wheeler and wife, Indianapolis; Mrs. Inda Platt, Ill.; Jas. H. Dickson, China; Walter A. Jones, O.; Thomas Stacey, Nev.; G. H. Cole, wife and son, Duluth; W. H.

Lloyd, Ia.; Olive M. Shiner, Cleveland; Wm. Adrian and Nellie Adrian, Ill.; Mrs. Jas. A. Fouts, Mrs. J. H. Hamner, and Miss Calhoun, La.; W. Brough, Okla.; Mrs. Audrey P. Bruce, Colo.; Mrs. Estella Mitchell, Mich.; S. A. Duke and Chas. Duke, Ark.; D. J. Johnson, Philadelphia; Miss Lola Lamb, Kalamazoo; Mrs. F. J. Haigh, City; M. D. Forman and wife, Ky.; F. W. Rogers, Wis.; F. M. Bachmann and wife, Mrs. H. P. Snider and two children, Indianapolis; M. Bunnell, Duluth; C. D. Stevens, Wis.; Frances Phelps, Japan; R. F. Bryant, M. D., and Mrs. Bryant, Minn.; Mr. and Mrs. W. Mark, O.; Mrs. Chaney Gregory, Mich.; M. Hovey, wife and child, and Dr. G. L. Bliss and wife, Mich.; J. M. Barker, Ind.; Mrs. Iva Gordon, Ia.; R. M. Rhodes, Jr., Ind.; R. C. Kittle, N. Dak.; Mrs. R. M. McCauley and W. R. McCauley, Ill.; Walter B. Downs, Ill.; F. E. May, Mich.; Mr. and Mrs. C. M. Roser, O.; R. W. Hiatt, Toledo; J. H. McCoy, New York City; B. E. Taylor, O.; Will L. Clark and wife, Ariz.; Byron Field, Chicago; A. V. Billett, New York City; W. M. Shults and Geneva Shults, Ark.; H. Weimert, Buffalo; Mrs. S. C. Taylor and son, O. W. Dodge and W. L. Melick, Chicago; Mrs. Chas. Crumpacker, Ind.

News and Personals

Rev. H. Weinert, of Buffalo, N. Y., is stopping at the Sanitarium.

Mr. and Mrs. Wm. L. Clark, of Jerome, Ariz., are newly arrived guests at the Sanitarium.

Dr. E. L. Eggleston, of the medical staff, returned last week from a ten days' trip through Florida.

Miss Frances Phelps, a returned missionary from Japan, is among the newly arrived guests at the Sanitarium.

Dr. G. L. Bliss and wife, of Three Rivers, Mich., are spending some time in the institution, taking rest and treatment.

Mr. and Mrs. Daniel Matthews, of Charleston, W. Va., accompanied by Mrs. Mary Matthews, are new arrivals at the Sanitarium.

Mrs. W. K. Kellogg, accompanied by her nurse, Miss Radley, has returned to the Sanitarium after spending the winter in Florida.

R. F. Bryant, M. D., of St. Cloud, Minn., is stopping with us, taking rest and treatment. Dr. Bryant is accompanied by his wife.

We have with us again Mrs. Mary Coburn, of Indianapolis, Ind., a frequent visitor to the institution, and one who is always welcomed by her many friends.

Mrs. Mary E. McCauley, of Normal, Ill., has registered with us for a course of rest and treatment. Mrs. McCauley is matron of the Soldier's Orphans' Home in Normal.

At the Medical Students' prayer meeting on Friday evening, Miss Emma Barnes, of Japan, gave a most interesting talk on how she was led to become a missionary and of her experiences in preaching the Gospel in Japanese villages.

Miss Emily Stevens, matron of East Hall, left us last week for an extended trip to Europe. She expects to spend the summer principally in Berlin. Her place is being supplied by Mrs. Virginia Hoodner, one of the graduate nurses.

The Sanitarium family is looking forward to a visit from Mr. Clayton S. Cooper, of New York, national secretary for Bible Study of the Y. M. C. A. Mr. Cooper expects to arrive on May 4 or 5, and will remain four or five days, holding classes for Bible study daily.

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**The Battle Creek Sanitarium School
of Health and Household Economics**

**BATTLE CREEK
MICHIGAN**

The Missionary Rally was held as usual on Sunday afternoon in East Hall parlor. Mr. C. Stauffacher led the meeting and by his earnest and impressive words put his audience in sympathy with the noble life of self-sacrifice and endeavor which was evidenced by the talk of Mrs. Z. T. Griffin on "Village Life in India."

Of the thirty-six counties of Michigan voting on local option April 4th, temperance won in twenty. An attempt was made to reinstate the saloon in ten dry counties but it was defeated in eight of them. The progress of the temperance movement is shown by the following: In 1907 there was one dry county in Michigan; in 1908 there were eleven dry counties in Michigan; in 1909, thirty, and in 1910 there are forty counties in which there are no open saloons.

The first meeting of the newly organized Sanitarium Christian Endeavor Society was held on Sunday evening, being led by Mr. C. S. Quail. At the close of the devotional service the chair was taken by the president, Mr. W. C. Kellogg, and in a brief business session the various standing committees were appointed. The new society starts out with a membership of nearly seventy-five, which is sure to be largely increased in the near future. The regular prayer service was appointed to be held in the chapel on Friday evening at the close of the lobby song service.

We are pleased to have with us again Dr. C. C. Creegan and his wife. Doctor Creegan has been for many years connected with the

American Board of Commissioners of Foreign Missions as district secretary, but recently resigned that position to accept the presidency of the Fargo College. The doctor and his estimable wife have received a very cordial welcome in their new sphere of labor, and under his able leadership the institution is making rapid progress. Doctor Creegan remained with us but a day or two, but Mrs. Creegan is tarrying a few days longer.

A private letter from Dr. Florence Holt, who is rusticated in Colorado, contains interesting samples of the experiences that she and her companion, Miss Rouzee, are having. They are eight miles in the country and the farmers around are coming in large numbers to the "Little Doctor" for relief. As an instance, a farmer's wife came to their abode early one morning urging that haste be made to come and save the life of a horse that was bleeding to death from a cut on barbed wire. Hurrying away with needles and other implements, the mangled blood-vessels were soon bound up and the valuable life saved by the help of a dozen men holding the animal down. In the struggles of the horse a man was badly hurt, and so another patient was on hand. But before leaving for her breakfast the brave little doctor had the satisfaction of seeing both horse and man comfortable and on the road to recovery.

The Sanitarium pulpit was occupied last Sabbath by Rev. Jas. H. Dickson, of Ceylon, who addressed a large congregation on the

theme of "The Challenge of Eastern Unrest." The speaker prefaced his subject with a very interesting account of a description and history of the Island, which is separated from the mainland of India by a shallow strait thirty-seven miles in width. A row of rocky islets reaching very nearly to the surface of the water extends across the strait, upon which the British government is contemplating the construction of a railway similar to that being built at Key West. None of the larger steamers are able to pass through this strait. The first European nation to occupy Ceylon was the Portuguese, who were replaced by the Dutch in the seventeenth century, and the Dutch in turn were dislodged by the British in 1798. Speaking of the British rule in the Indian territory, Mr. Dickson claimed that on the whole it has been sound and salutary. While he was not prepared to defend all that has been or is being done by the English authorities, still England has given to India a far better rule than India could have given to itself. The north part of the Island is occupied by Hindus and the prevailing religion in the south part of the Island is that of Buddhism. The caste system was illustrated by a man kissing the feet of the man above him and kicking the face of the man below him, and was declared to be the greatest obstacle to progress that is found in the Hindu territory. The challenge of the East to us is, the speaker claimed, that of a helpless and dependent people crying to a people living in luxury. The constant increase of luxurious living in this country during his absence is the most marked feature claiming the attention of the returned missionary.

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Application for entrance for Summer and Fall Terms should be made this spring. An illustrated announcement containing further details will be sent upon request.

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NORMAL SCHOOL OF PHYSICAL EDUCATION Battle Creek, Michigan

THE BATTLE CREEK IDEA



Vol. III No. 22

BATTLE CREEK, MICH., MAY 6, 1910

Price 2 Cents

THE NATURE AND VALUE OF FOODS

As Set Forth in a Lecture Given in the
Sanitarium Parlor April 13, by
Dr. W. H. Riley

THERE are two things in foods that are useful to the body, and these are energy and material, and we know that the material that is in the food comes from the earth, the air,

Sanitarium Medicine

The Principles of Medical Practice Followed at the Battle Creek
Sanitarium

THE system of medical practice adopted by the Battle Creek Sanitarium is denominated Physiologic Therapeutics, or the treatment of disease by natural means and meth-

HOW FASHION DESTROYS THE RACE

Preservation of a Normal Physique and Its Effect upon the Nation—Paris Fashions, and How They Influence Us

THE first thing a woman gains by not wearing constrictive clothing is a chance to breathe. Then, too, she will be able to attain to a natural, normal, womanly develop-



A COZY CORNER OF THE SANITARIUM PARLOR

and water, and passes through the plant before it can take on or accumulate energy. There is no way of which we know that a food substance can take to itself energy except by first passing through a plant. We also know that the energy that is in food comes from the sunlight, and that this energy
(Continued on page two)

ods. The aim is to restore the normal activities of the bodily functions by supplying natural nourishment and physiological stimulation. There is an essential difference between the stimulation of vital force by the use of irritating poisons which pathologically excite vital resistance, simply changing
(Continued on page five)

ment. A woman who grows up in clothing that constricts, is like a cucumber growing in a bottle. She simply assumes the form prescribed by the latest fashion. What does the fashion-monger over in Paris know about what kind of a form a woman should have? What does he know or care about the size of her bones, or the shape they should have?

Original from

UNIVERSITY OF MICHIGAN

The Creator of our bodies knew what shape they should have, and there is no fashion-maker who can make any improvement. What an absurd thing it is! Here is a young woman whose form, the modiste says, must be molded so that she will fit the coming fashion. But the fashion may change, and then she will not fit. She is then a misfit, and has to be formed over again.

WOMEN ARE NOT PROPERLY DEVELOPED

The American woman, and civilized women generally, are suffering more from lack of development of the muscles of the trunk than from any other cause. Weakness of the abdominal muscles is the great cause of many of the ills from which women suffer. Everything depends upon the strength of these muscles. I claim that a woman has no right to be a mother unless she has something of an athletic development and is strong. An invalid with feeble, puny muscles can not be a mother without peril to herself and without impressing upon her children the

most beautiful as well as most essential. A woman with a small waist is necessarily crippled and deformed.

Some years ago I made a study of waists. I measured many of the Grecian statues of women. I visited the great galleries of the world, traveling in Europe and in this country, among which were the Corcoran gallery, the gallery in New York, the Vatican at Rome, the Louvre in Paris, and various others, including those of London. I obtained permission to make measurements of the ancient Grecian models, and I found that the percentage of the average waist measurement to the height was forty-seven and six-tenths,—that is, the waist measured nearly half the height. I made measurements also of a large number of the statues of men, as Apollo Belvidere, and others, and I found the average waist to be for man, only forty-five and seven-tenths per cent. It was quite a surprise to me to discover that the ancient sculptors made the waists of men smaller than those of the women. So I measured a lot of modern men and women.

I had to go away out

BEYOND THE PALE OF CIVILIZATION

to do it. I went to the Indian Territory, down to New Mexico, and visited the Yuma Indians, who were still running about, at that time, in their native simplicity. I measured the waists of these people, and found the proportions to be exactly the same as those in the ancient statues. From there I went to the Chinese minister in San Francisco and got an escort who took me through Chinatown. I went everywhere, found the people and measured them. The results of my investigations were that the modern Chinese and the American Indian and the Mexican women had the very same proportions as the ancient Grecian women.

Then, some nine years ago, I went over to Egypt. By the aid of a very intelligent dragoman there, I succeeded in getting people from away up on the Nile, of many nationalities, who had never worn anything but their native dress. Also, on the Midway Plaisance in Chicago in 1893, I visited the people there, and, becoming acquainted with the overseers, obtained an opportunity to make a large number of measurements there. I found in every instance that these proportions were verified in the modern men and women who grow up in a natural way. It is only civilized woman who has a small waist; but the primitive, natural woman always has a waist larger than that of a man the same height.

A WOMAN NEEDS A LARGER WAIST

because she has a larger stomach. The anatomical studies that have been made in Germany upon this subject show that the liver of woman is ten per cent larger than the liver of a man of the same height; and that, likewise, the stomach, spleen, pancreas, colon, and all of these large vital organs located about the waist are larger in woman than in man. This is because these organs in woman must sometimes do work for two. They have more work to do under some circumstances than the same organs in man. You see, then, how absurd it is to suppose that a woman and a mother should have a smaller waist than a man.

Unfortunately, it is becoming the fashion again for the waist to be very small. Fashion let off the pressure for a while, and the waist has been enlarging the last few years.

ORIGIN OF FASHIONS

I suppose you know that these fashions originate in the demimonde. They do not originate among the respectable people. In Paris, some twenty years ago, I set out to find a pair of French high-heeled shoes, such as I had seen in this country; but I could not find such a pair on sale anywhere. I hunted, and I had a friend who knew Paris very well also hunting for them. They had to be made to order if you got them at all. A shoemaker said, "I will make you a pair; they always have to be made to order. Nobody wears such shoes here except actresses, and certain other people. We can not sell them." "How much will they cost?" I said. "Forty-five francs." That is about nine dollars. So I said I would wait until I arrived home. I had to wait to buy them in New York. How ridiculous it is for Americans to be aping those people who are far from being respectable over there in Paris.

But people are doing that very thing here, and the small waist is one of the most miserable imitations of a miserable fashion. The woman who wants to be healthy and to be capable of performing all the functions of woman in a normal way, can not afford to wear a tight dress or to constrict herself in any way. It is a most inhuman and damaging thing to do. It not only interferes with the respiration, but with the functions of the liver, stomach and bowels. It is one of the causes of chronic constipation which is almost universal in American women, and of the autointoxication which results from it. It is the cause of gall-stones, and it is a well-known fact that among women this trouble is four times as frequent as in men. Where one man has had gall-stones, four women have, and it is very difficult to find a woman over sixty years of age who has not had them.

With these facts in view, there ought to be an enthusiastic crusade against these senseless fashions which are not only imperiling the health of the present generation, but, what is far worse, are menacing the welfare of the generations to be, and depriving them of that valuable asset of health which is every child's rightful inheritance, namely, a perfectly formed and natural physique.

NATURE AND VALUE OF FOODS

(Continued from page one)

is absorbed by the plant through the leaves, and is stored up in substances like starch and sugar, and other food material. We further know that when we analyze food-stuffs we may separate these foods into what we call food elements; and thus we ascertain that there are different

FOOD ELEMENTS.

There are, first, carbohydrates, made up of starches, sugars, and cellulose; second, fats, oils; third, salts, including all the different chemical salts present in the foods, such as sodium, potassium, lime salts, etc.; and fourth, acids, such as citric acid in the



LIVING NEXT TO NATURE

probabilities of a lifelong invalidism.

The bicycle, during the short period it reigned, did much in the way of emancipating woman from the fetters of fashionable dress. I am very sorry that the bicycle is not so popular now. The automobile has crowded it out, and in some respects it is a change for the worse, instead of for the better. Bicycle riding is a splendid gymnastic exercise. It is a whole gymnasium; and when women rode they had to dress with some sort of reasonable care in order to give their bodies a chance for movement.

WOMEN SHOULD HAVE LARGER WAISTS THAN MEN.

It is a fact that most of you are familiar with, I suppose, that women need, and have naturally, larger waists than men. Therefore, a small waist is no mark of womanly beauty, because woman is beautiful only when she has her natural form. God knew how woman ought to look and what form she ought to have, and gave her the form that is

lemon and orange, the strawberry, cherry, and other fruits; malic acid in the apple, tartaric acid in the grape, etc.; fifth, water. Water is a food element in the sense of being able to build up tissue, but not in the sense of furnishing any energy to the body. There is no energy in water that the body can make use of or get out of it. The energy remains in the water, does not leave the water, as the water passes through the body. Sixth, protein. Protein is a very important food element and furnishes nitrogen as well as other chemical substances to the body.

WHAT IS A FOOD ELEMENT?

Now these are the six different food elements, and we call your attention to the fact that a food element is a substance which can not be divided into any simpler form and still be a food. Just as soon as we divide a food substance, make it simpler in any way, it ceases to be a food. Starch, for instance, contains six parts of carbon, ten parts of hydrogen, and five parts of oxygen, but if we separate that combination in any way, it ceases to be a food. A food element, then, is the simplest substance which can exist and retain its identity and still be a food.

Further, we notice the function of these different food elements in the body. It is well for us to keep clearly in mind all the time that a food contains energy and material. For instance, we ask the question, Does starch contain material or energy which the body can utilize? And we find that starch contains energy that the body can utilize, but the material in the starch is not used in building the body except for certain tissues; you can make some of them out of starch, but you can not build up a nerve cell or fiber, or brain matter, or the spinal cord, or muscle, or any of the more highly organized tissues, of starch. You can not create nerves with starch; you can not develop the muscles with starch. And what is true of starch is also true of sugar, which belongs to the same class of carbohydrates.

THE FUNCTION OF THE CARBOHYDRATES

is to furnish energy, not material, to the body. Of course energy and material are inseparable. We can not think of one without bringing to our minds the other; but the material in the starch is not laid away in the tissues to be used in building up tissue; it is simply a medium, and carries the energy with it. And the same is also true of sugar. There are a number of different sugars, and perhaps it is not necessary to mention all of these in detail. Cane sugar, grape sugar, and milk sugar are perhaps the most important. These are all produced in the plant except the sugar of milk, which is produced in the animal.

Then, we have fats and oils. And we notice that these have the same chemical elements in them as the carbohydrates. Fats and oils contain carbon, hydrogen, and oxygen just the same as the carbohydrates, but in different proportions; and the molecule of fat is a large molecule, in comparison with the starch molecule, and is more complex in its makeup. It contains more energy than a similar weight of starch, but the energy in the starch lends itself more readily to the

needs of the body; it is more accommodating in its function, the energy in the fat is not so readily given up in the body. The function, then, of starches, sugars, and fats in the body are very much the same. Fats and oils have what we might call a sort of therapeutic or remedial effect in the body in addition to their food value, as we notice in certain diseases of nutrition like tuberculosis, where a large amount of fat is given to the patient for the purpose of stimulating his nutrition.

WITH REFERENCE TO ACIDS AND SALTS

they have a very important role to play in the body in stimulating nutrition and in entering in the chemical formation of tissue.

does not furnish any energy to the body—simply furnishes material for building up tissue. A large part of the body is made up of water; four-fifths of the brain is composed of water, and all of the several tissues of the body contain a large percentage of water.

PROTEIN FOODS

Protein, the last to be considered, is a very important food element. It is the only single food element that a man can live on indefinitely and maintain life. Feed an animal on starch and it will die if it has no other food, but the animal will live indefinitely on protein. However, we are not to understand by this that it is a good thing to eat protein without any other food. That is not true.

The animal life can be sustained quite in-



A BUNCH OF BANANAS GROWING IN THE SANITARIUM PALM GARDEN

For instance, a child suffering with rickets has not had sufficient lime salts to build up his bones; or another individual suffering with scurvy, perhaps, lacks some other important salt in his food; and so we are coming to learn that these salts that are present in the food, that we can not detect with our vision—we can not see them because they are of microscopic form and covered up with starches and other things—are a very important food element. They have a wonderfully important function to perform in the nutrition of the body. As stated a week ago, they are found in the vegetables principally, and quite largely also in cereals, and in a smaller amount in the different kinds of fruit.

Water we can pass by very readily. It

definitely on protein, because the protein elements of food are, as we may say, accommodating. When an individual has too little starch or sugar or fat, the protein elements will furnish the energy which these other elements would have furnished if they were present in our food. But the principal function of protein elements is to build tissue. They build up the nerves, muscles, and glands, they furnish the material for building up the highly organized tissues of the body. And in addition to that they also furnish energy, if the body needs energy and can not get it from any other source.

The principal discussion of the food question in recent times has centered about this

(Continued on page four)

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THE MYSTERY OF SICKNESS

DISEASE has long been regarded as a mysterious visitation of wrath by some disgruntled god or spirit, or a still more mysterious dispensation of Providence. People have looked upon illness as being some malign entity hovering around in the darkness or in uncanny places, ready to seize upon its victims, and those who were so unfortunate as to be caught were regarded as being at best unfortunate, if not actually suffering for some deed that roused the anger of the stalking monster. Disease has no doubt in past generations been associated in the popular mind with the occult and unearthly realm of ghosts and hobgoblins. Even in civilized countries the conceptions of witchery and the witch-doctor, and demon-possession have existed in rudimentary forms.

As people become intelligent in regard to themselves and the responsibilities that rest upon every individual in regard to his own health, the old-time ideas of disease are being relegated to the dim and forgotten past, with all such trumpery. Men are coming to understand that disease is a consequence, not a punishment; that it follows certain conditions as naturally as the night follows the day. If a man is ill, some one has done wrong; either he is the victim of his own misdeeds, or he is suffering from the wrongdoing of others. It is usually the case that he is simply reaping his own sowing.

There is no longer any mysterious or ghostly superstition about ill-health any more than about good health. It all depends upon the course we choose to pursue. The man who is sick has neglected to take care of himself. He has lived in violation of the laws of his being. At least, this is so commonly the case that, while there are perhaps a few exceptions, it may be stated as a general rule. His situation is a perfectly natural result, and neither the Lord nor the devil is to be blamed. We believe in giving the old enemy his due, but it is hardly fair to blame him for all our blunders and misdeeds; and as for charging our sicknesses and the deaths that are all too frequent to the good

and beneficent Lord, it is simply outrageous. He causes neither sickness nor death.

Let us stand up and take our share of the blame and from what we have suffered learn to live right and practice to do right, and we shall soon banish the hoodoo of sickness from our land.

THE AUTOMOBILE HAS ARRIVED

AND it has come to remain. Its humble little predecessor, the bicycle, had a triumphant reign, but it was short-lived as a triumph, and then the little creature settled down to sober business as a servant, where it still lives contented with a humbler sphere, and where it is actually needed.

The thought of horseless carriages for our ordinary roads has been hovering in the minds of men for two or three decades. Twenty years ago there were men so rash as to venture the opinion that the time would actually come when buggies and wagons would be propelled by some mechanical contrivance. That was before the real days of electricity and gasoline industry. Now the swish and rush of the automobile is one of the sounds and sights that have lost their novelty and become part of the ordinary features of life. We are just now passing through a period when the automobile is king of the road. A merciless, senseless tyrant he often is, paying but little regard to the rights and safety of the people who ride or those who still have to walk.

The Sunday-school boy was right when he defined the Scripture expression, "the quick and the dead," by saying that the quick were those who succeeded in getting out of the way of the automobiles, and the dead were those who did not.

The numerous dreadful accidents that go largely to fill up the columns of the daily papers testify to the criminal recklessness of those who set at defiance every consideration of safety for the excitement of rapidly moving through the air and along the road. There is no doubt a strong fascination in this sort of sport for certain men, one that had its inception in the fleet-running bicycle, a comparatively innocent and harmless diversion. But it is to be hoped that as with the days of racing steamboats, and racing railway trains, and racing bicycles, the days of racing and raging automobiles will soon cease to be the terror of the ordinary man and woman who must go afoot. If it were only the reckless "shuffers" that had to suffer, it would not be such a serious matter, for we should soon be rid of that genius; but since the calamity generally comes to the passengers and to the pedestrians, the

rage may have to run its little course before the "beastly" thing settles down to sober business which it is doubtless destined to do.

As a therapeutic agent, the automobile undoubtedly has a place of usefulness. There is an exhilaration, a gentle excitement attending the swift, smooth rush of the machine that excites to action every part of the nervous and circulatory system. The abundant quantity of fresh air which one necessarily absorbs also aids in the vital processes. A ride in one of these modern chariots is certainly beneficial in many ways, and we only await with patience the time when good sense and a regard for safety will supersede the days of thoughtless adventure.

NATURE AND VALUE OF FOODS

(Continued from page three)

element of food—protein. And I presume you have read of Chittenden and of others, and of the tests of endurance that have been made. The question is, How much protein does the human body require? Shall we take a large amount of protein or a small amount? Physiologists have told us in the past that about one-seventh of the food eaten should be protein. Protein, I presume you understand, is represented by lean meat, the white of egg, gluten in the wheat, and by albumin in peas, beans, peanuts, and other nuts which are rich in protein.

The work of Chittenden and others has, I think, clearly demonstrated the fact that we do not need so much protein, and when we take an excess of protein we are clogging up the machinery of our bodies. When we take an excess of protein, our bodies are very much in the same condition as a furnace that has a lot of cinders in it; they hinder the burning of the fire in the furnace. So with an excess of proteins; they are in the way and the body has to get rid of them, and many diseases are either caused or aggravated by taking an excess of this protein, because the protein when it is not properly absorbed and used in the body, undergoes decomposition in the lower bowel, and poisonous substances are formed which are carried to the blood-vessels and all the tissues of the body.

EXCESS OF PROTEIN RESPONSIBLE FOR DISEASE

Now, I am free to admit there are some things about this that I do not think have been demonstrated clearly, scientifically; and yet we find enough before us to prove that in many instances an excess of protein food is responsible for many diseases, such as Bright's disease, arteriosclerosis, different symptoms like headache and insomnia, and various other nervous symptoms. But a full

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discussion of this question of protein would take much time, and we will not enter into it here. One of the professors of Yale University came to this institution some two or three years ago and put some of the physicians and nurses through a series of tests with reference to their endurance. These tests consisted of various movements, like holding the arms out a certain time, bending down to the floor, and other things. These were tests of endurance to see how long the individual could perform these various movements. Now, of course, they did not know that they were going to be compared with the athletes at Yale. The tests were made, quite a large number of them, and when the records appeared it was seen that the men who had eaten a low protein diet exceeded in every instance the endurance tests of the men who had eaten a high protein diet. And the other men were men in training; while the men here were doing mental work in their offices, and were not in training at all. Tests have been made in Germany in long-distance running and walking matches, and in various ways between the man who eats a large amount of meat, or excess of protein, and the man who eats a small amount of meat or none at all, and whose protein is low. And the low protein man comes out ahead every time in the matter of physical endurance. Now, these tests of course are all very interesting, and are written up, and any one who desires can secure a copy of this report at the bookstand.

SANITARIUM MEDICINE

(Continued from page one)

the form of the disease, and the use of those agents which excite the various organs to natural and healthful action.

This system includes all those means, and

measures by which the body is nourished and strengthened, and incited to natural activities. Among the means of natural nourishment are, first, good, pure food. The adjustment of the diet to the special requirements of the patient is simply a matter of scientific knowledge and calculation. The intelligent farmer works on this line in studying the wants of his cattle and horses, and he seeks skilfully to supply just the food that will best nourish and strengthen his animals, and he is particularly careful in regard to any of them who may be ailing in any way.

The study of human physiology is a more delicate matter, infinitely more important than the study of cattle, and as much more important in its practical application to the care of the human body as is the human being of more value than cattle. The same care and skill that produces good horses will, if intelligently applied, as surely produce good men and good women.

In addition to foods is the matter of drink, a very essential consideration in nutrition. And, added to that, is the supply of good pure air, and proper housing and clothing. These things are directly related to the nourishment of the body; they are physiologic considerations, and should be the subject of careful thought and provision. And still closely related to the nourishment of the body is the matter of exercise, for the purpose of proper development of the various organs and tissues of the body, and for the purpose of elimination.

Elimination is a vital process as well as nourishment, and is closely associated with the physical welfare of the system. Next to feeding and supplying the body is the process of disposing of the waste matters that are constantly accumulating. Physical exercise is one of the means of promoting this process. The other eliminative processes also

require careful attention and they are easily promoted by the use of proper foods and drinks in connection with requisite physical exercise.

The natural stimuli of the bodily activities are, principally, the application of heat and cold, electricity in its various forms and modifications, and muscular movements, administered to the patient through mechanical or manual Swedish movements, massage, etc. So the Sanitarium system of medicine resolves itself into the employment of all natural resources and forces which are by the Creator himself adapted to the normal uses of the body. There is nothing artificial about it, nothing that would, when intelligently applied, create any false or artificial conditions. They are intended only to promote those functions of the body which are normal and necessary.

One great advantage of this system of natural treatment of disease is the availability of all the means which are employed; and all that is required on our part is a study of the human system, an understanding of how it appropriates to itself the various resources produced in nature to its own uses, and then to encourage the body in its work of appropriating those resources. Disease is a condition of the body or some part of the body in which the natural processes are interfered with, and the work of treating disease consists in the restoration of those normal operations.

There are five principal means of nourishment: air, water, food, clothing, and exercise; and these are arranged in the order of their comparative necessity. We can live for some time without food, but we can endure but a moment without air, consequently air is the most accessible and abundant of all the resources of nature. We are continually enveloped in it, and we have only to breathe it in, and even that is not dependent upon our own volition. The air is fairly forced upon us, and it only remains for us to see that the supply is pure and not contaminated with any other various sources which poison the air supply.

Water is the next necessity in order, and this, too, is free and abundant, not so available as air, nor is it as constantly necessary to our existence, and yet we could live without food or clothing longer than we could exist without water; so air and water cost us comparatively nothing. Rivers flow through our lands, springs are breaking out from the earth, the rain descends from the clouds and we are constantly in contact with an abundant supply of this life-giving fluid, of which at least three-fourths of our system is composed.

Food is perhaps the next consideration and is still less abundant than water, more difficult to obtain, and yet the earth produces an abundance of food for all of her children. There is no necessity that any one should go hungry except as men are deprived of food by their shiftlessness or by the avariciousness of others. God intended that every one of his creatures should have all of the good healthful food that they require. We have to put forth a little effort to get it, but it is within our reach.

Clothing and housing protection is the next consideration. This is, perhaps, still

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more costly and procured with greater effort than is our necessary food, and yet it may be obtained by every industrious person. God also provided that every one of his creatures should be properly protected by buildings and clothing.

Exercise, as mentioned here, includes the modifications of exercise—not only bodily activity, but bodily rest, as well as mental activity and mental rest. A combination of activity and rest in proper proportions is an essential consideration in the matter of promoting bodily health. Thus all the means of bodily nourishment are amply provided for the whole race, and it is a lamentable fact that we are, as a people, so ignorant of their legitimate uses. Were the people as mindful of the principles of bodily nourishment as it is their privilege to be, there need not be the sickness and suffering that now prevail.

As to the natural means and methods for the treatment of diseased conditions, these are equally available to us all. The application of heat and cold is a matter so easily within the reach of those who are afflicted that none are without these means of relieving suffering and controlling diseased conditions. Electricity is abundant in the air which we breathe, and needs only to be extracted and applied. To be sure, an intelligent study of the conditions and philosophy of the system is required.

The Battle Creek Sanitarium simply presents to the suffering world an assemblage, an aggregation, of those natural and rational agents designed for the promotion of healthful conditions scientifically systematized and intelligently applied to diseased conditions.

QUESTION BOX DEPARTMENT

EACH Monday evening Dr. Kellogg conducts a Question Box talk in the Sanitarium parlor, where all guests and patients are at liberty to submit questions relating to health and health topics.

Q. How much water should an adult person drink each day?

A. Three pints at least; though it depends upon how much you perspire. One should drink when he is thirsty. The chronic invalid generally needs drink when he is not thirsty. One should drink for internal bathing purposes. If the average invalid should drink two or three quarts a day in the summer time, it would not do him any harm, provided he is careful not to drink much at meals or too soon after eating. At mealtime you may take a few sips if you want to, or whenever you feel thirsty; do not drink copiously, but two or three hours after the meal drink more freely.

Q. Does the presence of liquid food in the mouth suspend the secretion of the salivary glands?

A. Yes, if it is neutral liquid. If the liquid is acid or sweet, the salivary glands will be stimulated to pour out saliva to dilute them.

Q. What causes goiter?

A. Poisons, unquestionably; exophthalmic goiter is caused probably from poisons absorbed from the intestine. That is the general belief of the profession at the present time. Recent investigations made in Switzerland show that the water of particular regions contains certain poisons which produce goiter. People there are rather proud of their goiters, and go around with goiters hanging clear down to their waists, and with straps to hold them up. Professor Kocher, of Berne, has removed, I think, about three thousand goiters. Unquestionably goiters are also produced by a toxic diet. There are various toxins which produce this effect. The thyroid gland is present in the body for the purpose of destroying poisons. But when a person takes into his body a quantity of poisons this gland is over-stimulated, so it grows abnormally large.

Q. Can cancer be detected by a blood test?

A. No; there is no blood test for cancer.

Q. I understand the Sanitarium is opposed to the use of meat.

A. We are down on it a good deal harder than that. "Opposed" doesn't express it.

Q. Is flatulence a result or an indication of putrefaction?

A. It is not an indication of putrefaction; it is an indication of stasis, but there may be putrefaction also; it is an indication that there has been a stoppage of the rhythmic procession of food remnants, and the bowels should be thoroughly cleansed out.

Q. Why is it that outside physicians will not allow patients who are suffering with stomach trouble to eat raw fruit, and here it is advocated?

A. I have met a great many doctors who were willing their patients should eat fruit if it was properly prepared; but the principal objection that doctors have is that people do not select and prepare their fruit properly. If patients are allowed to eat fruit, they eat green fruit, preserved fruit, canned fruit smothered with sugar, and prepared in so many unwholesome ways that many doctors have become afraid to let patients take fruit. But there are very few doctors who would not be willing the patient should eat a baked sweet apple—one of the most digestible things in the world; or a little banana puree, or any other sweet fruit in the form of pulp.

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MAKING MILK ARTIFICIALLY

We have heard so much about the synthetic production of perfumes, syrups, dyes, and what not, from coal-tar products, that we are not easily surprised by the information that milk may be artificially made. The method described below, however, is not a chemical one, but consists merely in the mechanical admixture of distilled water with crushed and finely ground sweet almonds. Practically the only difference between cow's milk and that made of almonds is that cow's milk contains animal casein, while the artificial milk contains vegetable casein. The latter will produce a good supply of cream, and if allowed to stand some time will become sour. It may also be coagulated by the addition of vinegar or acetic acid. When combined with grape sugar, it is capable of generating some extraordinary organic substances. The artificial milk may be used with tea and coffee in the same way that cow's milk is used.

To make the milk, procure half a pound of sweet almonds—the Valencia, which is cheaper than the Jordan almond, will give just as good results. The skin of the almonds may be removed by scalding the nuts in boiling water, and peeling them with a sharp knife. The almonds should then be placed in a wooden chopping bowl and chopped as finely as possible. Take about two ounces of the chopped almonds and place them in a mortar with a small quantity of distilled water. Then grind or levigate the chopped almonds, adding water occasionally, until about twelve ounces of water have been used. The longer the grinding is continued, the thicker and richer will the milk be. Now take a piece of cheesecloth about 12 inches wide by 24 inches long and rinse it in clean water, and after wringing it as dry as possible, fold it double over the top of a pitcher, and pour the contents of the mortar through the cloth into the pitcher. The milk may be squeezed through the cloth by wringing it gently, as shown in one of the illustrations, but care should be taken to prevent any of the larger almond particles from being forced through the meshes of the cloth.

If some of the milk thus produced is set aside for three or four hours, a thick layer of cream will be found on the surface. If too much water has been used in forming the milk, it may be necessary to add a little sugar of milk to sweeten it. The artificial milk has a slight almond flavor when taken clear, but this is practically lost when it is used with tea, coffee, or cocoa. The color of the cream produced is quite pale, but it may be improved by using some of the almonds without the skins removed, in the proportion of two ounces of whole almonds to six ounces of the blanched almonds. Care must be taken to prevent any bitter almonds from finding their way into the mixture, but one or two bitter almonds to half a pound would not affect the flavor of the milk.

Half a pound of almonds will make three pints of milk.—*A. J. Jarman, in Scientific American.*

ARRIVALS

THE following is the list of arrivals at the Battle Creek Sanitarium for the week ending May 1: J. C. Armstrong, Pa.; F. E. Markell and Mrs. Markell, Pa.; Geo. W. Hill, O.; Mr. and Mrs. C. C. Creegan, N. Dak.; J. W. Davis, Ky.; Walter A. Partin, Tenn.; Robt. S. Halplin and son, Chicago; A. B. Darrough, Mo.; J. W. Stephenson, Minn.; R. Z. Morse, O.; Miss Emma E. Morse, O.; D. E. Blake and Mrs. Blake and daughter, Chicago; Mrs. Rich. Lieber, Indianapolis; Mrs. V. K. Irwin, New Orleans; Chas. A. Hall, Mo.; Mrs. G. C. Rhodes, City; J. J. Burke, Mass.; Mrs. A. T. Lambert, Detroit; Emily May Ely, Mich.; Lola Walker, Esther Blonin and Dora Walker, Mich.; Agnes Bader, Copenhagen; Mrs. J. H. Galbraith, O.; Miss L. F. Griffin, Boston; R. L. Templeton, Chicago; R. R. Tate, Ill.; F. B. Powells, Ky.; Mrs. J. D. Carneal, Va.; J. Edgar Colloran, M. D., Los Angeles; M. N. Carter, New York City; Mrs. Agnes Ebert, O.; H. A. Briscoe, Ill.; J. C. Wissert and J. W. Wissert, Okla.; Mrs. J. W. Walton, Ill.; Mrs. Geo. W. Gray, New York City; Mrs. A. G. Clifford, New York City; W. J. Zimmerburg and wife, Detroit; S. S. W. Bistonis, Milwaukee; Mrs. Paul Wilson and son, Wis.; M. T. Miller, Chicago; Mrs. J. H. Mead, City; Mr. and Mrs. J. A. Stephenson, Duluth; Mr. and Mrs. J. W. Corey, New York City; D. C. Mathews, N. Y.; A. Goldsmith, New York City; Mrs. M. Dalton, Winnipeg; Jacob Fisher, Ind.; Mr. and Mrs. Jno. Van Dyke, Chicago; Adele Valentine, Pa.; W. A. Newman, Ind.; Miss Fern Cole and Geo. H. Cole, Duluth; Mr. and Mrs. H. L. Shelden, S. Dak.; David C. Cook, Jr., and wife, Ill.; F. G. McHenry, Mich.; E. W. Reid, Detroit; Emma Scott, M. D., India; Gertrude E. Lenering, Mich.; J. M. Barker, Ind.; W. A. Nirling, Mich.; Mrs. B. B. Johnson and Miss U. Dunn, Mo.; F. J. Boyd, Mich.; Mrs. Frank Husband, Pa.; Pedro F. Osono, Mexico; D. E. Blake, Chicago; E. W. Dallman, Mich.; Mrs. O. B. Granger and Mrs. Richards, Mich.; Mrs. H. E. Ambler, Chicago; H. B. Bond, wife and daughter, Tenn.; Mary Ella Chadeague, Buffalo; Mabel C. Lincoln, Detroit; Alice Cole, Ill.; S. J. Herrick, wife and daughter, India; P. Dezymalski, P. Schneda and Dr. F. M. Booth, Chicago; O. B. Dotter, Buffalo; J. M.

Rhodes, Jr., Indianapolis; E. R. Brown, Indianapolis; G. B. Goff, G. B. Goff, Jr., and Earnest A. Goff, Mich.; John McGunagle, Mich.; David Herr, O.; O. H. Kernnings, Detroit; J. M. Ward, City; Jas. W. Porter, Calif.; Edw. F. Work, City; Mrs. E. B. Dyer, Chicago; W. C. Kellogg, City; Miss M. Haughey, Ark.

News and Personals

Miss Loree Arthur and her sister have returned from an extended trip through the South, visiting their old home in Camden, S. C.

Dr. Emma Scott, a missionary from Bindrabau, India, serving under the M. E. Board, is taking much-needed rest at the Sanitarium.

Miss Frankie L. Griffin, a returned missionary from India, has arrived at the Sanitarium to be with her mother, Mrs. Z. T. Griffin, who is a patient.

The culminating convention of the Layman's Missionary Movement is being held in Chicago the present week. The Sanitarium is represented there by Messrs. Geo. E. Judd and G. C. Tenney.

At the next meeting of the Sabbath school there will be provided a special program relative to temperance, which is the lesson for the day. The subject to be emphasized is the baneful effects of the cigarette.

Just a Word To Our Patrons

The Sanitarium has a first class washery and your clothes will receive special care at reasonable prices.

Phone Office for boy, or
SANITARIUM LAUNDRY

TWO COURSES IN DOMESTIC SCIENCE

The One-Year Course, intended especially for Matrons and Housekeepers or for those who desire it for its educational value, includes General Cookery, Invalid Cookery, Institutional Cookery and Practice Cookery, Anatomy and Physiology, Household Chemistry, Home Nursing, Household Microscopy, Household Economics and Architecture, Sewing, Medical Dietetics, Theory, Table Service, Physical Culture, etc.

The Two-Year or professional course, intended especially for Dietitians, Lecturers, and Demonstrators, includes all the studies of the one-year course, and in addition Advanced Chemistry, Advanced Physiology, Sanitary Science, Bacteriology, and Hygiene, and Advanced English.

ONE SPECIAL FEATURE of this school is that students are given an opportunity to meet a large part of their expenses by work along lines which aid them in their studies.

**The Battle Creek Sanitarium School
of Health and Household Economics**

**BATTLE CREEK
MICHIGAN**

On looking over the arrival list, we notice that the following doctors have registered at the Sanitarium during the past week: J. Edgar Colloran, M. D., Los Angeles; Emma Scott, M. D., India; and Dr. F. M. Booth, Chicago.

Rev. and Mrs. D. S. Herriek and daughter Prudence are spending a short time at the Sanitarium en route from California to Boston. Mr. and Mrs. Herriek are missionaries from Madura, India, under the American Board.

Miss Emma E. Barnes, who has spent many years as a missionary in Japan, has been at the Sanitarium for several months, recruiting her health and strength. She leaves this week for her home in Detroit, where she will remain for some time, before returning to her field of labor.

Mr. Clayton S. Cooper, secretary of the Y. M. C. A. for Bible Study, arrived at the Sanitarium on the 4th inst. and will remain over Sunday. A full program has been arranged for Mr. Cooper in giving instruction in methods of Bible study to the different departments of the Sanitarium family. He will occupy the pulpit on Sabbath forenoon.

The speaker at the students' prayer meeting was Rev. James H. Dickson, of Ceylon. He concluded his remarks upon "Medical Missionary Work in Ceylon" by giving valuable points with relation to medical practice and hospital work on the mission field.

Though not himself a medical man, he is the son of a physician and has had exceptional opportunities for seeing the splendid work done in the hospitals and dispensaries of the island of Ceylon, where he has labored for several years.

Miss Frances Phelps, a missionary from Japan, is among the recent arrivals at the Sanitarium. Miss Phelps took charge of the Christian Orphanage work in the city of Sendai at its first inception and has for several years occupied the post of matron, having the main charge of that work, which is conducted in behalf of homeless and deserted children. The reports that we have heard of that commendable enterprise speak well for the good work which is being done by Miss Phelps and those associated with her. She is now taking a well-earned rest.

The Missionary rally was held as usual in the parlor of East Hall on Sunday afternoon, and an unusually large audience was in attendance. The meeting was led by Mr. W. A. Frymire, one of the medical students, from Monmouth, Ill., and the medical students' quartette gave a very fine selection. Rev. David S. Herriek, of Madura, South India, was the speaker, the subject of his talk being, "What Some Christians of South India have Done." He said that it was one of the encouraging features of the work in South India that those native Christians with whom he had had to do, are showing signs that they are rapidly developing and beginning to take more and more interest in

their own affairs, more responsibility in the conducting of church affairs, more responsibility in the raising of money to carry on the evangelistic and educational work within their bounds. Mr. Herriek spoke especially of what the Christians of South India had done for themselves in three particular lines: first, in the line of self-support; second, in the line of self-government, and third, in the line of self-development.

The subject of the discourse at last Sabbath's service was "The Needs of Japan," by H. W. Schwartz, M. D., who has spent about a quarter of a century in Japan, for the most part in Sendai, two hundred miles north of Tokyo. He spoke from a very practical viewpoint of the need that Japan has of Christian enlightenment and influence. The speaker related at some length the active influence that is now being exerted upon that country both directly and indirectly by Christianity. The superiority of the Christian religion is openly confessed by many prominent Japanese. Doctor Schwartz spoke of the needs of Japan for Christian medical ministry, stating that while there were a certain number of skilful Japanese physicians, that number was limited, and their charges were often exorbitant. The most of the people are poor and unable to obtain the services of the competent native physicians. Therefore, the work of the Christian physician who is willing to serve them regardless of price is much appreciated and fills a very needy place in the Japanese situation.

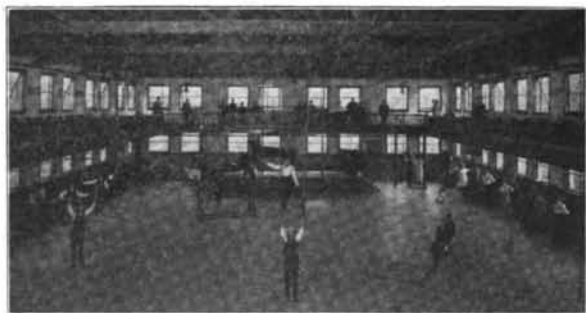
Normal School of Physical Education

A GREAT OPPORTUNITY for MEN and WOMEN

A Two Year Course. Each year comprises Three Terms of 35 weeks and a Summer Term of 8 weeks.

By affiliation with the American Missionary Medical College, courses in Anatomy, Histology, Physiology, Hygiene, Physiology of Exercise, Physiological Physics and Chemistry, Physical Diagnosis, Accident and Emergencies, Urinalysis, Blood Analysis, Etc., of exceptional value are offered.

By affiliation with the Battle Creek Sanitarium students obtain Hydrotherapy, Mechanotherapy, Emergency Nursing, and Medical Gymnastics.



Tenical subjects, such as Anthropometry, History and Literature of Physical Education, German and Swedish Gymnastics, Indoor and Outdoor Athletics, Swimming and other sports are conducted by an able faculty of specialists.

MR. HORACE FLETCHER will give during the year a course of lectures on "Vital Economics." The next regular term begins April 5th.

Equipment Indoor and Outdoor Gymnasiums and Swimming Pools, and fully equipped Chemical and Anatomic Laboratories.

Terms Tuition, full year, \$100 including the Summer School. Tuition for Fall, Winter and Spring Terms, \$75. Tuition for Summer School alone, \$35. Board \$3.00 to \$3.50 per week.

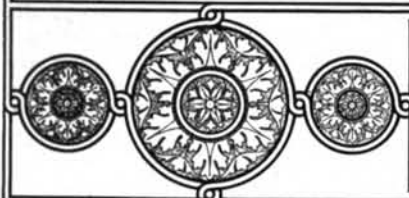
Self-Support Unusual opportunity is presented by the Sanitarium for earning money toward expenses.

Application for entrance for Summer and Fall Terms should be made this spring. An illustrated announcement containing further details will be sent upon request.

Address: WM. W. HASTINGS, Dean,

NORMAL SCHOOL OF PHYSICAL EDUCATION Battle Creek, Michigan

THE BATTLE CREEK IDEA



Vol. III No. 23

BATTLE CREEK, MICH., MAY 13, 1910

Price 2 Cents

THE PREPARATION OF OUR FOOD

Dr. W. H. Riley Lectures at the Sanitarium on the Why and How of Cookery

THE question is very frequently asked, Why do we cook our food? or, Should we

The Way to Health

Briefly Pointed Out in a Lecture in the Sanitarium Parlor by J. H. Kellogg, M. D.

THE sure road to health is a thing I am sure every sick man and woman ought to be

THE BATTLE CREEK SANI- TARIUM NOT OUSTED

The Long-Pending Tax Suit Has Now Been Satisfactorily Settled

It is quite generally known to the public that during some years past there has been



THE "EAST HALL" SANITARIUM ANNEX

cook our food? We hear a great deal in these days about raw diet. Cooking seems to have two purposes. One is to make the food more digestible, and the other to make it more palatable. Cooking increases the digestibility of certain foods, and some foods

(Continued on page four)

interested to find. That is what the thousands of invalids who are racing up and down the world looking for sure cures, are trying to find—the sure road to health. There is a sure road to physical health, just as there is a sure road to moral health. I am

(Continued on page seven)

litigation between the Sanitarium corporation and the City of Battle Creek in relation to the question of taxation. The chief consideration involved has not been, from the Sanitarium standpoint, a monetary one, but has been rather the determination of the status of the institution as a charitable and benevo-

UNIVERSITY OF MICHIGAN

lent corporation, recognized as such by the State, and hence enjoying the immunities, exemptions, and, above all, the protections which are accorded institutions of this class.

The Sanitarium has from the beginning of its work been conducted as a charitable association. No one has received any part of the dividends. As will be shown later on, there have, in fact, never been any actual earnings. Owing to errors on the part of the original incorporators, the charter was not of a sort adapted to its character. When that charter expired, some twelve years ago, a new charter was secured from the State, which recognized the charitable and benevolent character of the association, and afforded it the protection which charitable institutions require in order that the gifts and endowments made to them may be safeguarded in the interests of the public.

The city authorities of Battle Creek refused to recognize the rights of the institution under this new charter, and this led to litigation. A decision of the Circuit Court fully recognized the charitable and benevolent character of the association, and this decision was confirmed by the Supreme Court

a few words in behalf of myself and my colleagues.

First of all, I desire that every citizen should know that our chief object in seeking full recognition as a charitable and benevolent institution has not been to escape taxation, although of course it is manifestly the duty of the Board of Trustees of the institution to secure in its interests all the immunities and exemptions which are granted by the constitution and the laws of the State. We desire that it shall be clearly understood that our main purpose has been to establish beyond chance for question the legal status of our work as a charitable enterprise. This is a matter of the greatest importance to us, for it is the very foundation of our work. An interest in the charitable and philanthropic aims and objects of the Sanitarium is the main consideration which has brought together and has held together under most trying circumstances the considerable body of self-sacrificing men and women who compose our organization,—30 physicians, 250 nurses, 30 managers, bookkeepers, stenographers, and clerks, with several hundred other workers. Among the leading man-

managers and others, have during the years which have passed, contributed in this way to the building up of the work; and the duty and privilege of doing this as a service to humanity and a charitable and humanitarian work has been constantly held before not only ourselves, but all physicians, nurses and other employees connected with the establishment. At the regular monthly meetings of employees, these considerations have been constantly urged upon the large family of workers, and it has been only through this means that the management have found it possible to perfect and hold together the large organization of men and women which has rendered the conduct of the enterprise possible.

It needs no lengthy argument to make clear the fact that intelligent men, possessed of sufficient ability to fill the positions of trust and responsibility in our work, would not be willing to devote long years of service to the building of an institution upon a foundation which was known to be unsubstantial in character, and with a full knowledge that the hard-earned fruits of their labors, devoted to charity, philanthropy and a work of human betterment was liable to be destroyed, dissipated, or converted to other ends and purposes.

From the beginning the work has been conducted as a philanthropy. No person has ever received one cent of the profits or earnings. There has been no profit-sharing. As a matter of fact, there have been no profits. The physicians of the institution, unlike the medical staffs of other hospitals, have maintained no private practice, and have received no medical fees for examinations or operations, and have had no prerequisites of any sort.

Beginning in a two-story farmhouse forty-four years ago this summer, struggling constantly against opposition and under embarrassments of various sorts, the work has steadily grown to its present proportions. Something of an idea of this growth and of the work accomplished may be gained from the following facts gathered from our records:

Total number of patients treated from the beginning to January 1, 1910	47,502
Number of surgical cases.....	7,144
Number of charity patients.....	18,000
Number of free surgical operations	4,000
Proportion of free operations, more than half.	
Proportion of charity cases, two-fifths the total number.	
Number of visits of physicians to charity patients in Battle Creek and vicinity, more than.....	30,000
Number of visits of nurses to charity patients in Battle Creek and vicinity, more than.....	40,000
Number of baskets of food distributed to poor families in the city, more than	100,000
Amount of money actually expended in the treatment of the sick poor, not including charges for examinations, operations or professional attendance.....	\$876,048.13



"SOUTH HALL"

of the State. Notwithstanding this, another suit was begun by the City, which has recently been dismissed by agreement.

A statement was sent abroad to the effect that the Sanitarium had been ousted; but this is not true, no judgment having been entered.

In this final settlement, the charitable, benevolent, and philanthropic character of the institution and its right to exemption from taxation under the laws of Michigan are fully recognized, thus vindicating the position of the management, and the claims which have been made by them respecting the charitable character of the work of the Battle Creek Sanitarium under their direction.

Our readers will be interested in the following communication from Dr. J. H. Kellogg, president of the Sanitarium association, which we quote from the official record of the proceedings of the Common Council of the City of Battle Creek:

*To His Honor, the Mayor,
the Common Council,*

and the Citizens of Battle Creek.

Now that the controversy which has existed so long between our organization and the City and State has been amicably, and we trust permanently, settled, I desire to say

agers of the institution are several who have devoted more than half their lives to the work. Our aim has been to get the institution out of debt and firmly established as a recognized and self-supporting philanthropy, with an endowment consisting of an established reputation, a complete and adequate equipment, and an earning capacity sufficient to enable it to do a very considerable amount of gratuitous medical work.

For thirty-four years we have labored assiduously toward this end, and have encountered many and very great obstacles. We are glad at this moment to feel that we have made substantial progress. We take much satisfaction in the fact that the evidence brought out in the recent trial, and the findings of the court as regards the facts established, clearly vindicate the Sanitarium management from all charges of dishonorable or culpable conduct, and establish the status of the institution as a genuine philanthropy conducted in the interest of the public welfare and not for the furtherance of any selfish interest. This is to us a matter of vital importance, for we have invested many years of anxious toil and effort in the building up of the establishment and with only such meager compensation as was absolutely essential to supply the necessities of life. Many hundreds of persons, doctors, nurses,

In addition, the institution has done something for the city in a financial way. We have paid out to merchants, farmers and laborers the following aggregate amounts:

To merchants	\$3,186,098.00
In wages	4,150,000.00
To farmers	1,232,532.00

Total\$8,568,630.00

These large sums have been expended in this city.

During more than thirty years (to 1898) taxes were regularly paid, notwithstanding the purely charitable character of the work, amounting to \$44,221.00.

The total of these several expenditures, as shown by our books, amounts to the large sum of \$8,612,851.00.

To this may be properly added, as a conservative estimate of moneys paid out by patients to local merchants, \$2,000,000.00, making the great total of \$10,612,851.00 brought to the city of Battle Creek and expended here through the agency of the Battle Creek Sanitarium.

In addition, it seems proper to call attention to the fact that several extensive and highly lucrative enterprises have been developed in the city through the exploitation of Battle Creek Sanitarium ideas, especially by those who have been brought to this city by the wide-reaching influence of the Sanitarium. The financial increment to the city from this source can not be estimated at less than ten or twelve million dollars.

It should be noted in passing that these great sums, which are the direct or indirect outgrowth of the Sanitarium activities, have constituted a substantial addition to the taxable properties of the city. A considerable part of this steady stream of wealth flowing in through the Sanitarium has lodged in the hands of thrifty citizens and is represented in the city in the form of splendid business blocks, great mercantile enterprises, magnificent factories, and substantial bank accounts.

On the other hand, the Sanitarium itself, which has been the real creator of this wealth, or at least the door through which it has entered into the city, has remained in poverty. At no time during the whole period of its history has it been free from debt. Although first incorporated as a profit-sharing business, the promoters discovered by the end of the first year that the enterprise could never be made a commercial success, and, surrendering all claims to profits or dividends, turned the institution over to the board of directors with instructions to conduct it as a charitable and benevolent institution; and as such it has been carried on ever since.

Large buildings have been erected, it is true, but such improvements have always been made with borrowed money. The Sanitarium has always paid its debts, but the payment of those debts has been made possible only by donations which it has received. It is true that the net assets of the institution amount at the present time to about \$500,000.00, but it has an interest-bearing debt fully equal in amount.

In verification of the statement that the institution has never made profits and that it could not possibly be conducted success-

fully as a commercial enterprise, I desire to call attention to the sources from which its assets have been acquired, by which it will appear that not only the total net assets, but a sum several times as great as the present assets, has been contributed by the friends and supporters of the enterprise, chiefly by those who have been actively engaged in the work as physicians, managers, nurses, and workers in various departments. The following is an exceedingly conservative statement in relation to these gifts, and falls considerably below the actual facts:

Donation from original stockholders and early donors....\$	50,000.00
Donations from the citizens after the fire	27,000.00
Donations from other sources after the fire	35,000.00
Donations from men physicians, averaging eleven, who receive wages less than, or not exceeding, those of a trained nurse, reckoned at \$1,000 a year	484,000.00
Donations from lady physicians, averaging six, reckoned at	

dollar a week, \$50 a year each	220,000.00
Increase in value of real estate	50,000.00

The total of all these donations is the considerable sum of..\$3,113,000.00
Total amount expended for charity \$ 876,048.13 |

This sum added to the present total assets amounts to.....\$1,548,048.13
Subtracting this from the total amount donated (\$3,113,000.00), leaves a balance of \$1,564,951.87 which the institution has run behind its actual earnings, this amount having been made up by contributions.

Thus it clearly appears that the Sanitarium has never been a profit-making enterprise and has not even been self-supporting, having been maintained only by the gifts of money and of service.

In view of all these facts and circumstances, it has seemed to us most unjust that we should be taxed for the privilege of conducting an institution which has not only been no burden to the public, has received no appropriations from the State, and solicited no donations from the general public, but



"WEST HALL"

\$500 a year—the amount necessary to make their wages equal to that of an ordinary trained nurse	132,000.00
Donations from business managers, averaging two, who get salaries less than that of an ordinary laboring man, reckoned at \$1,000 a year.....	88,000.00
Nurses, averaging 130, working without salary, other than board and clothes, or at salaries less than one-third that of the ordinary trained nurse, reckoned at \$4 a week, or \$200 a year	1,144,000.00
Examination fees (30,000 patients at \$5.00)	150,000.00
Salary and donations by Dr. Kellogg, reckoned at \$3,000 a year, 35 years	105,000.00
Surgical fees, averaging \$12,000 a year	528,000.00
Profits from food business given to the institution	100,000.00
Contributions from employees, averaging at least 100, working for much less than ordinary wages because of the charitable character of the institution, reckoned at one	

has done much to lift the burden of sickness and poverty from the shoulders of the city and the State, and has besides added many millions to the wealth of the city, while affording a bare subsistence to those who have borne the burdens of the work. Many local merchants and manufacturers have waxed rich by gathering in the disbursements of the institution for labor and supplies, while the faculty and management of the institution, with less than half a dozen exceptions, have not been able even by practicing the closest economy, to accumulate enough to purchase homes for their families.

In view of the above facts, together with the pledges which were made to us by the Common Council before the erection of our new main building, we have felt that we were entirely right in asking exemption from taxation so far as the law would permit. We have never asked or desired anything which we did not believe to be in harmony with the laws of the State and the constitution, and while we have felt confident that our position would be sustained by an appeal to the Supreme Court, we have desired, so far as possible, to accede to the wishes of our fellow-citizens, and in this spirit have accepted the proposition made to us by the State and the city through their representatives, the

(Continued on page four)

The Battle Creek Idea

PUBLISHED WEEKLY AT
BATTLE CREEK, MICHIGAN

SUBSCRIPTION RATES

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Six Months - - - -	.50
Three Months - - - -	.25
Per Copy - - - -	.02

VOL. III MAY 13, 1910 No. 23

THE MEAT HORROR NOT ABATED YET

WHEN Upton Sinclair, a socialist at heart, aimed his book, "The Jungle," at the hearts of the American public in behalf of the oppressed laborer, and hit the public in the stomach, as he cutely said he did, there was an almost universal upheaval of the public gastric apparatus as the unspeakable horror of the great Chicago butcheries were laid bare by one who knew whereof he spoke. Seldom, if ever, has such a furore been created by a book, because it aroused the indignant protests of a public whose sense of decency was outraged by the indisputable revelations made concerning the meat supply upon which the whole country mainly depends.

Things at the slaughterhouses underwent a sudden renovation. The vast premises were quickly put into a more presentable shape, the conditions of the workmen were made more tolerable, floors were washed and walls whitewashed, and the public was cordially invited to come and see that things were not so very bad after all. The government took a hand in cleaning up the business, and a system of inspection was instituted that claimed to give to the forgiving public a perfect guarantee that in the future they need have no fear of the contamination of their meat supply.

From time to time it has leaked out that the government inspection of meat was not all that might be desired, and some reports went further and made serious charges of inefficiency, until now the whole subject seems likely to be opened up by a book written by Dr. Alfred Leffingwell, ex-president of the American Humane Association. Commenting upon this book the *Literary Digest* of May 7 has the following to say:

That tainted and unhealthy meat is sent from America to Europe in large quantities and consumed there is the alarming declaration of Dr. Alfred Leffingwell in his book on "American Meat." The contents is very disquieting reading. The writer tells of unbelievable conditions in the animals slaughtered for the table. The millions of hogs affected with trichina, which are killed and manufactured into fitches, hams, and sausages, are spoken of as spreading disease and death

throughout the world. Since Upton Sinclair wrote his "Jungle" no more appalling picture of trade greed and corruption has ever been painted by the pen of a man who is not a romancer, but a humanitarian and a scientist. Many people have believed that the abuses were ended by the agitation following Mr. Sinclair's exposé, but this book seems to indicate that they still exist.

He charges the lawmakers of the land with inadequately protecting the public against the sale and consumption of what is little better than carrion. The inspection of meat, from the shambles to the market, is inadequate, he declares, and he thinks that the law as at present instituted is so formulated as to admit of unwholesome food being sold to the public under the pretext that the officers of the government have given their sanction to its wholesomeness and soundness. He talks about the "Meat Trust" as representing a body of dealers who are bent on gain without regard to the health of the people. "One can not study the present government regulations, with their various rulings and decisions, without feeling that every sentence is more favorable to the producers than to the consumers of meat." He demands that "this attitude should be completely reversed." He appeals to public opinion. "Few are the reforms that can be carried out until public opinion is largely in their favor."

SANITARIUM NOT OUSTED

(Continued from page three)

Attorney-General and the Mayor, and in accepting this proposition, which has already been published in the city papers, it is with no small satisfaction, as well as appreciation, that we note the full recognition given to our work as a bona fide charitable and benevolent enterprise, and entitled to the exemptions and protection which the laws and the constitution afford such institutions, and we accept this recognition as a guarantee to us that the enterprise to which we have devoted our lives and for which many hundreds have made great sacrifices, and to which thousands of invalid men and women look back with deepest gratitude for humanitarian service rendered, will in all the time to come enjoy the fostering care and generous solicitude of the municipality and the State as one of their wards, which, while devoting itself wholly and unstintingly to the public weal, asks nothing in return but the protecting care of the city and the State that its work may not be hindered or destroyed.

In conclusion, I desire for myself and in behalf of the management of the institution to express deepest gratitude for the courtesy shown us by the Mayor and the members of the Common Council, as well as the Attorney-General, in the discussion of the various questions which have arisen during the somewhat prolonged negotiations, which have finally resulted in a complete and amicable settlement of our differences. We desire also to express deepest gratitude for the goodwill and sympathy manifested toward us by the Business Men's Association, and by the committee of leading citizens appointed by the Association, and the many hundreds who signed the petition circulated by the committee. These evidences of friendship and appreciation on the part of the majority of the

leading citizens of the city are an assurance to us that the status of our work is now fully established and that we may henceforth devote our full energies to the perfecting of our system, the development of our work, and the clearing off of our indebtedness. Now that our differences are amicably settled, we hope to live in peace and harmony with our fellow-citizens and to be able to do something in the future, as in the past, toward the advancement of the growing fame and renown of our fair city.

In behalf of the Board of Managers of
the Michigan Sanitarium and Benevolent Association.

J. H. KELLOGG, Pres.

PREPARATION OF OUR FOOD

(Continued from page one)

it does not. We take starch, for instance. Starch is made up of a number of granules or little wooden boxes, and in these boxes are the starch granules. It is a little granule, if you prefer, the covering of which is cellulose, about the same substance as the bran of wheat.

Each granule, then, consists of a covering of cellulose, inside of which is the starch itself. This cellulose is difficult of digestion; in fact, the human digestive organs can not digest cellulose to any considerable extent. The grazing animals, like the sheep, the horse, the cow, digest cellulose; that is why they can eat grass, oats, and hay. And the reason we can not eat them is because they are made up largely of cellulose. As it is impossible for us to digest this covering of cellulose from around the starch granule, the proper thing to do is to soften it in some way and rupture it, so that the starch can pass out of its hard, tough covering and be set free, and thus the digestive juices can come in contact with it. And this is what we do when we boil our potatoes or any starchy food.

RAW STARCH IS INDIGESTIBLE;

because of its cellulose envelope we can not digest it at all. It is insoluble. Boiling starch brings about a physical change in the starch; it bursts the capsule and sets the starch free, so that the starch can come in contact more readily with the digestive juices. That is the purpose of cooking starch by boiling. And that is practically all it does. Of course the starch is made more palatable, because we can not taste raw starch; it is insoluble and therefore tasteless. Nothing has a taste unless it is soluble.

Starches may also be cooked at a higher temperature. The boiling point of water, as you all know, is 212 degrees Fahrenheit at sea level. Those of you who have been up in the mountains camping, and have tried to boil potatoes know the difficulty you have

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had, because the atmospheric pressure up a mile high is less than at sea level and the water boils at a lower temperature, and of course the lower the temperature that it boils at, the less is the amount of heat retained in the process of boiling. We can boil starch at a higher temperature by increasing the atmospheric pressure, and this is sometimes done by certain apparatus for increasing the atmospheric pressure, but ordinarily that is not done.

COOKING BY BAKING.

But we do cook starch at a temperature of 300 to 350 degrees, when we put our potatoes into the oven and bake them. A loaf of bread baked in the oven has an outer crust which is sweeter than the inner part of the loaf, and the reason is because in cooking the bread at the higher temperature the starch is transformed into what we call dextrin. Dextrin is a very soluble form of starch, and the reason that the crust of the bread is sweeter than the inner part of the loaf is because the crust contains a large amount of dextrin, which is very quickly digested and tastes sweeter than the inner part of the loaf, which is not digested so readily. The crust of bread contains a large amount of dextrin; but the inner part of the loaf contains very little dextrin. The boiled potato contains no dextrin at all, simply soluble starch, because it is cooked at a temperature of 212 degrees. The baked potato contains a large amount of dextrin, because cooked at a temperature of 300 degrees or perhaps more. All starchy foods, cooked at this high temperature, by which the starch is converted into dextrin, are rendered more digestible. On the Sanitarium bill of fare, or diet list, is a list of dextrinized foods, including breakfast toast, zwieback, the various flaked foods, granola, and a number

of others. The flake is first boiled or steamed and rolled into a very thin particle of food, then cooked at the high temperature of 350 degrees and the starch is converted into dextrin and rendered very digestible.

There are many people, very often young persons, who have what they call acid dyspepsia. They eat vegetables and foods of that kind that are cooked at the boiling point and consequently not well done; and those who eat foods of that sort, and oatmeal and other cereals that are poorly cooked, have trouble; they have a heavy feeling in the stomach and sometimes have flatulency and acid eructations, because of eating these starchy foods that are poorly cooked, and being unable to digest them.

GIVE HIM A CRUST.

Probably the stomach contains an excess of hydrochloric acid. Take an individual in that condition and have him stop eating his partly cooked vegetables, oatmeal and mushes, and give him a crust of bread—a crust of bread does not always have a very good reputation, but it is properly regarded as one of the best foods there is—let him take his foods dry, take his starch in the form of dextrinized starch, and he will be greatly helped. When bread is put back into the oven and baked again, the starch is converted into dextrin and made soluble and digestible, and if that individual will eat his starch in that form, he will have very little or no trouble with his stomach, and will soon get well. I have seen a great many cases, and this is all I tell them to do: "Stop drinking a large amount of fluids, and eliminate from your bill of fare all half-cooked vegetables, and eat dextrinized foods."

So far as starch is concerned, then, cooking is helpful. The boiling of the starch makes the raw starch digestible, and the

cooking of starch at a higher temperature converts it into dextrin, which is very much more easily digested.

IN THE DIGESTION OF STARCH

there are several different steps. First, we have raw starch, which is insoluble. Take wheat flour and put it in a pail of water and it does not dissolve; it may float around for a time, but soon will sink to the bottom, but will not dissolve. Put some salt in water and it dissolves very readily. The salt is soluble, the wheat flour is insoluble, in cold water, at least. Starch is made soluble by boiling at a temperature of 212 degrees, and at a greater heat dextrin is produced.

There are three principal kinds of dextrin, and they have quite long names, so I will not trouble you with them; we may designate them dextrin No. 1 and dextrin No. 2 and dextrin No. 3. One is the least soluble, two is more soluble, and three is most soluble. Then, in the next digestive stage, we have what we call maltose. These six represent the different stages in the process of starch digestion—raw starch, soluble starch, dextrin, of which there are three different kinds, and maltose. The purpose of starch digestion is to transform raw starch into maltose, which is soluble and assimilable. Now, when we take a morsel of bread in our mouth and chew it, the ptyalin, or active principle of saliva, acts upon the starch and gradually converts it into maltose. Before being converted into maltose the starch has to pass through these different stages. And all of that happens in our mouth while we are chewing a piece of bread.

Many people can not digest starch well, particularly the man who has an excess of hydrochloric acid in his stomach, and to aid him we give him dextrinized foods. When he eats the dextrinized foods, he only has to convert them over one step instead of three or four, simply has to pass them through one step and they are digested. So dextrinized foods, then, are partly predigested; they require very little digestion; they are converted readily into maltose by the saliva.

COOKING SUGAR.

In regard to sugars, the cooking of sugars, so far as I know, does not increase their digestibility. Sugars are soluble, and some of them have to be inverted, as we say. For instance, cane sugar must be changed. It is soluble. You can put a teaspoonful into a glass of water and it soon disappears. The sugars, many of them—particularly cane sugar—have to be converted, or rather inverted, into another kind of sugar which is called dextrose before they can be absorbed, and that process goes on in the stomach and in the intestines. This process of changing one kind of sugar into another goes on in this way. But the cooking of sugar does not add to its digestibility.

As a general rule,

COOKING FATS

does not add to their digestibility. If the fat is incorporated in other tissue and is not set free readily, sometimes the cooking of it will break it up and disentangle it from the fibrous tissue of the meat, and cooking in that sense may help; but so far as the fat itself is concerned, cooking does not aid its

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digestion. More than that, cooking fat very often hinders digestion rather than aids it. Cooking starchy foods in fats, for instance, such foods as Saratoga chips, is a harmful practice. The combination of the fat and starch makes the starch more indigestible, and that sort of cooking is really a damage both to the fat and to the starch. Fried foods are usually difficult of digestion and should not be used, particularly by people with weak digestion.

Fat is made up of two parts: glycerin and fatty acid. The acid of butter is called butyric acid. It is very irritating to the stomach. Sometimes a person will eat a meal containing a large amount of fat, and after a while he has eructations, a burning and irritating substance comes up in the throat. It is the butyric acid. Therefore, people with weak digestion should not eat fried foods, because the fat is broken up, glycerin and butyric acid are separated, and butyric acid is very irritating. So, as a rule, we would better not eat our fats cooked, at least not fried.

The cooking of salts, so far as I know, does not improve them any. In fact, sometimes it splits them and changes them chemically. Sometimes in the vegetable foods these salts are set free by boiling. For instance, in boiling potatoes, there is a large amount of salt that goes out from the potato into the water which is lost entirely. So sometimes these salts are really wasted by cooking. But, of course, we want to cook the potato, and we can not very well cook it without cooking the salts in it. The better way, then, is to cook potatoes by baking. By "salts" I do not mean ordinary table salt only, but it includes a large list of other salts like those of potassium, sodium, lime, and magnesium, that are present to a greater or less extent in these foods.

GOOD TO COOK WATER.

Cooking water sometimes is a very good thing to do. Cooking water does not change it in any way chemically. Boiling water may change it physically, but not chemically. Water very often contains a large amount of lime, and we then call it hard water, and sometimes it is desirable to get rid of some of this lime, and you may do that partially by boiling the water, when a certain part of the lime is precipitated and settles on the bottom and sides of the kettle or vessel, and so is in that way taken out of the water. If any one wishes to make water soft, it can be done in that way.

For those who suffer with any disease of the kidneys, it is a good plan to use distilled water, as distilled water contains simply water and nothing else. Distilled water is not always palatable, being rather tasteless and flat, but this can be overcome by adding a little fruit juice to the distilled water, or by aerating the water, mixing the water with air, which is really the thing that gives water its flavor, to a large degree at least. If you simply pour water from one vessel to another through the air, the air is mixed with the water and its taste is improved in that way. It is always the safe plan in the presence of typhoid fever to protect the other members of the family by boiling the water. The

boiling of the water in this case destroys the germs that may be present in the water.

WATER IS A VERY IMPORTANT FOOD ELEMENT. It enters into the composition of all the important tissues. Every tissue of the body contains water, and the brain and other soft tissues have more water than others. And besides this, water carries the food to the tissues and carries the waste away; and when I have patients suffering with fever or with some chronic disease where the elimination is defective, where the skin is pale and dingy and the muscles are soft, I tell them to drink plenty of water and take lots of exercise so as to get more oxygen into the body and burn up the poisons.

Then we have the protein, the last food element. Cooking vegetable protein increases its digestibility. The reason is that in the vegetable the protein is incorporated in the meshes of the cellulose, and cooking it breaks up these meshes and makes them more soluble, and that enables the protein to go free. So that cooking vegetable protein, then, is desirable.

Cooking lean meat or the white of the egg makes it more indigestible. Raw meat is more easily digested than cooked meat. I am not advising you to eat meat raw, though

as a matter of fact raw meat is more easily digested than cooked meat. When the meat is cooked, the protein is coagulated, and that makes it more indigestible. A raw egg, for the same reason, is more digestible than a cooked egg. Cooking the yolk of the egg, I should say, increases its digestibility, and here at the Sanitarium very often we prescribe for our patients the hard boiled yolk of the egg because the yolk is composed mostly of fat, and boiling the yolk breaks up or disintegrates the fat, and makes it more digestible, whereas cooking the white toughens it and makes it more difficult of digestion.

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THE SURE WAY TO HEALTH

(Continued from page one)

sure that every Christian man, every intelligent man, I may say, knows that there is a way by which a man who is off the track morally can get straight. That is why we have our splendid churches. Two hundred thousand Protestant churches and 150,000 clergymen in this country give testimony to the fact that the average man believes that there is a cure for moral maladies.

It is not to be supposed that the kind Creator would make man a compound of physical, mental, and moral elements, and give him a remedy for his moral diseases, and give him none for his physical maladies. It is an unsupportable proposition—that a good God would put a man in a world where he was subject to moral disease and to physical disease, and give him remedies for one, and none for the other. There is just as surely and just as certainly a remedy for the physical maladies as for the moral maladies. In other words, if a wicked man can get rid of his bad habits, just as certainly the man who is physically ill can reform his physical deficiencies, his physical evils, and can get rid of them.

NOT ALL MEN ARE CURABLE;

not all moral invalids are curable, and not all physical invalids are curable. I have met men who were morally incurable, who were incorrigible, absolutely hopeless. There are moral lunatics, moral imbeciles,—men who have reached such a stage of moral degeneracy that there is no hope for them. There are just as certainly men who are in such a state of physical degeneracy that there is no cure for them. A man whose kidneys have disintegrated until he has only two-thirds of a kidney left where he ought to have two kidneys, is a degenerate; he can not be cured; he is absolutely incurable.

I want to impress upon your minds the fact that there is just the same cure for the physical man that there is for the moral man, and for just the same reason. If a man is ever cured morally, it must be by a power outside of himself. I do not like to say *outside* himself; I mean a power greater than himself. There is something in the man, working in the man all the time, that is independent of the will. The heart keeps beating, you know, whether we will or not. The lungs keep working while we are asleep, and all the processes of the body that are essential to health are going forward continually without any operation of our wills at all; entirely beyond the control of our wills; these operations are continually going forward.

RIGHTEOUSNESS AND HEALTH.

This power that works for life and health works for righteousness. That very same Power that works for righteousness, the same Power that changes the sinner's heart and makes a new man of him, works to change the physical man, to create him, and under the very same conditions. If the sinner is a degenerate, if he has lost all moral sense, if he has lost the power of appreciation of right and wrong, he can not be changed; he can not be cured of his moral

disorders any more than the man who has lost his physical sense.

But a cure can be accomplished in every man who is suffering from simple functional disorders, just as certainly as the cures we see continually wrought through the influence of Gospel principles in the changing of men's lives. And it comes about in just the same way. The man who has been a sinner, who has been a thief and a vagabond, a profane man, a general, all-round wicked man,—how does he change? First of all there must be a change of heart. He must determine that he will stop doing the things he has been doing, and do differently. That change of heart, or change of purpose in that man, is the essential thing; that is a beginning. Then he has to start out on a whole new series of practices. He can not go on stealing and be a good man; he can not go on swearing and be a good man. He has to stop doing all those things. Likewise the man who is ill and gets well physically, must do the same thing; he must co-operate with the healing power.

There is one law, and that is contained in this maxim:

"HE IS THY LIFE."

The great, infinite Power that created the universe and keeps it, and that made the very first man, that same Being has made every man who ever lived. It takes exactly the same power to make a man to-day that it did on creation week. There is no such thing as a natural force that has the power to create.

Men in this country, and in the old world, are working constantly to find the secret of life so that they can create living things by laboratory manipulations; but such a thing is just as impossible as it is for a man to make a world. It is just as impossible to make one little living cell as to make a man. If a man could create a cell, he could make a brain just as well, because he would have the secret of creation.

THE POWER THAT CREATES MAINTAINS.

Here is another thing: It takes the same power to maintain a man after he has been made as it did to create him in the first place. It takes the same power to keep a man alive that it did to make him, because our bodies are not carried forward by an automatic process. There is death continually. We are dying every moment, every sec-

ond of our lives. Every second of our lives some eight millions of blood-cells die. Eight million new blood-cells must spring into being every second of our lives, to take the place of the eight millions that die. They are carried into the liver to be formed into coloring matter to tint the hair, and the eyes, and to perform various offices in the body.

These eight million cells that die are replaced by eight million created to take their places.

They show that there is

AN INTELLIGENT POWER WATCHING OVER US.

We are being looked after. If we get into trouble there is a power exercised in our behalf to take care of us. These cells are created to help us out in an emergency, to keep off the germs. That is done in every man whose habits of life have not been such as to cause degeneracy. If a man is degenerate to such an extent that his body has lost the quality to be used in the creation of these cells, then that man will die. Pneumonia or any other incidental infection would kill him. Because he has not enough of these germ-fighting cells is the only reason why a person dies of pneumonia. The same thing is true of tuberculosis. If a man has tuberculosis, it is because of tubercle germs invading his body. But if that man corrects his habits of life, if he lives outdoors instead of in the house, and sleeps with the windows open, and breathes cold air, takes deep breaths, systematically adopts deep breathing, and regulates his diet properly; if he goes back to natural ways, if he ceases to do evil and learns to do well, if he does just what the converted sinner has to do, stops doing wrong things and goes to doing right things, he will get well, if he begins early enough, before his lungs are destroyed, before his body has become degenerated. If he waits until his body has become a mass of degenerative tissue, then it is too late.

What is it that cures the person afflicted with tuberculosis? There is no medicine, no specific diet, no treatment to amount to anything; simple living out-doors in the open air; because man is naturally an outdoor animal. Man was intended to live out in the open, to live in the sunshine, his body to be bathed in light; but we shut ourselves up in houses. The penalty which we are compelled to suffer is consumption, cancer, and

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a great variety of chronic maladies. Most of the things you are suffering from are indoor disorders. A Frenchman says, "Man does not die; he kills himself by his wrong habits of life." Now, when the consumptive, by these various evil habits, has brought upon himself the punishment of infection with this fungus disorder we call tuberculosis; when he has brought it upon himself, all in the world he has to do to get rid of it is simply to turn away from his evil ways, cease to do evil and learn to do well, move outdoors, go back to his natural conditions, and he gets well.

This is the whole philosophy of this institution; that is the sure road to health. "Obey and live," is the divine command. One part of it is just as sure as the other. "Obey," that is the command; and "live," that is the promise. The living follows the obedience.

ARRIVALS

THE list of arrivals at the Battle Creek Sanitarium for the week ending May 8 is as follows: Jas. Killian, Neb.; Geo. C. Howe and wife, Minneapolis; A. E. Copping, Mich.; W. H. Gill and wife, Indianapolis; Emily May Ely, Mich.; Mrs. Hugh H. Hafan, New York City; John L. Wincee, Ind.; C. C. McKnight, Calif.; Geo. C. Howe, Minneapolis; F. C. Edmiston, O.; R. W. Heitt, O.; E. W. Dollman, Mich.; Mrs. F. L. Weedman, Ill.; Clayton S. Cooper, New York City; Wm. Sinning, Pittsburg; Wm. S. Wilcox, New York City; Bettina B. Bradley, Ia.; Mrs. W. J. Thomson, Ky.; Mrs. N. H. Carlinhour, Chicago; E. W. Howard and wife, Ia.; Fred Riebel and wife, Fla.; John G. Schober, Pa.; E. Roychel, Mich.; Mrs. A. D. Kittle, Mich.; Miss Charlotte Harby, Ill.; Mrs. J. B. Walker, Pittsburg; Mrs. G. J. Lewis, O.; J. H. Roger, Mrs. H. Walker, O.; O. M. Sisson, Mich.; Louis I. Ighbeat, Ky.; Emma Morris, N. J.; Mrs. Amy Giles, Texas; Mr. and Mrs. T. T. Gallagher, N. J.; Miss Safford, Mrs. Fred V. Thomas, Cleveland; A. E. Pearce, Frances Pearce, Miss Jennie Nelson, Mich.; Raymond Houck, Ind.; Percy Tanner, Mass.; J. M. Barker, Ind.; J. D. Gorbam, Mich.; B. L. Swofford and wife, Kans.; A. P. Fitch, Ind.; Miss M. Lawslie, Ark.; John Glanville, Wis.; Mrs. Will Swan, Can.; S. H. Greenkill, Texas; John R. Kuntz and Mrs. Kuntz, Pa.; Henry C. Reynolds, Mich.; Miss Frances Hart, Ia.; Miss Cora Pugh, Cal.; Mrs. E. H. Flewellin, Ill.; T. B. Hough, Ill.; M. H. Clements, Miss Mayme Paumer, Toledo; T. R. Zeigler and wife, Ind.; J. E. Canfield and F. Simmons, City; J. Lehman, New York City; S. S. Skidelsky, Philadelphia; Mrs. P. S. Rugglers, C. A. Pierce, Cleveland; Karl R. Kandt, N. Y.; Fred Brimsman, Des Moines; T. P. Ford and wife, Md.; Mrs. E. J. Dunn, Ill.; C. W. Pideock, Ga.; Rev. and Mrs. J. P. Jones, O.; A. J. Otterson, Mich.; Louis Blass, Ark.; L. W. Robinson and wife, City; Daisy Stanford, Toronto; Wilson Lomade, Pa.; Minnie M. Van Pelt, Colo.; Chas. P. Holden, Boston; Mrs. R. W. Batcheller, O.; Eugene L. Lewis, Cincinnati; W. W. Nichols, Ralph D. Mershon and Bernard B. Adams, New York City; D. E. Blake, Chicago; J. B. Arts,

Texas; Chas. W. Hopkinson, Cleveland; Jim Commings, Ind.; Dr. Katherine Myers, Chicago; W. J. Van Patten, Vt.; Mrs. E. Osgood, Ill.; R. W. Hiatt, Toledo; W. B. Reid and W. E. Reid, Detroit; L. A. Miller and S. C. Kellenberger, Chicago; J. M. Rhodes, Jr., Ind.; R. D. Ewlood, Pittsburg; Fred W. Dans, Mich.; Mrs. Cora Petrie, Ky.; Solomon Miller, Mich.; R. F. Bryant, Minn.; W. H. Zundel, Pa.; Alfred Harburger, Cincinnati; M. H. Lane, Mich.; Mrs. Fred Mast, Ind.; E. A. Goff and wife, Mich.; W. W. Leland, Can.; Dr. R. R. Norwood, Texas; C. H. Jennings, Detroit; Wm. A. Rice, New York City; Geo. N. Hale and wife, Mich.; W. S. Woodon and J. R. Woodon, Wis.; N. J. Hanson, Idaho; F. E. May, Mich.

News and Personals

Mr. Percy Tanner, of Melrose, Mass., has joined the Sanitarium Nurses' Training School.

Dr. R. R. Norwood, of Mineral Wells, Texas, is stopping at the Sanitarium for a few weeks.

Miss Emma Morris, a missionary from Ludhiana, Punjab, India, under the Presbyterian Board, is taking treatment and rest in the institution.

Mrs. E. J. Dunn, of Springfield, Ill., formerly a patient at the Sanitarium, has returned for further rest and treatment. Mrs. Dunn is accompanied by her daughter.

Mr. T. T. Gillingham, manager of one of the largest hotels in Atlantic City, N. J., accompanied by his wife, is again at the Sanitarium. Mr. and Mrs. Gillingham are very warm friends of the institution and staunch advocates of Sanitarium principles.

The Sanitarium W. C. T. U. met Thursday evening at the home of Mrs. Emmons on Manchester street, and after the regular routine of business, Dr. A. J. Read gave a very interesting and instructive lecture on "Medical Knowledge in the Home."

Rev. J. P. Jones, D. D., and wife, prominent missionaries of the American Board from Madura, Southern India, are among the guests at the Sanitarium. Doctor Jones has been a prominent and active speaker in the recent Layman's Missionary conventions held throughout the country.

The first meeting of the Southern Michigan Physical Directors' Association was held in Kalamazoo on the evening of the 4th inst. Doctor Hastings and Misses Wade and Bovee were the delegates from the Sanitarium. The next meeting of the Association will be held in the Sanitarium June 16.

The Sanitarium family has enjoyed a visit during the past week from Mr. Clayton S. Cooper, International Secretary of the Y. M. C. A. for Bible study. Mr. Cooper conducted a large number of services in different sections of our family, each intended to encourage and promote the group system of

Bible study, in which a good degree of interest was elicited.

Dr. Katharine Myers, of Chicago, Field Secretary of the Woman's Foreign Missionary Society of the Presbyterian Board, was for a day or two a guest at the Sanitarium. Doctor Myers is greatly interested in the educational work of our institution and has urgent calls for physicians and nurses to go to needy parts of the world. An invitation was extended to her to address the nurses' graduating class June 2, which she hopes to be able to accept.

The Commencement exercises of the Sanitarium and Hospital Training School for Nurses will be held during the latter part of this month and early in June. The baccalaureate sermon will be delivered by Rev. W. H. Phelps, of the First Methodist Church, on May 28, and the graduating exercises will be held on the evening of June 2 in the gymnasium. The graduating class will number forty-four, and the occasion promises to be one of more than usual interest.

Several members of the Sanitarium family, workers and guests, were in attendance at the recent Layman's Missionary Congress, held in the Auditorium Theater, Chicago, May 3 to 6. They report a very enjoyable meeting in interest and enthusiasm. The speakers were men of renown in the professional, business, and political world. The meeting marked the culmination of the extensive series of conventions which have been held in the principal cities throughout the country during the winter.

By letters from Drs. A. V. and Ethel Heynemann, recent graduates of the American Medical Missionary College, who went to Edinburgh to take examinations for British diplomas, we learn that they were entirely successful in passing, and have obtained the degree of Licentiate of the Royal Colleges of Physicians, Edinburgh; and of the Faculty of Physicians and Surgeons of Glasgow, entitling them to practice medicine anywhere within the British dominions. After a brief period of rest they will return to their home in Adelaide, Southern Australia, where they will engage in medical missionary work.

One of the most forcible and interesting addresses that the Sanitarium has been privileged to listen to recently was that delivered by Mr. Clayton S. Cooper, on Sabbath morning in the chapel. The subject of the address was "Opportunities," and the lesson was drawn from the incident of the disciples neglecting in the Garden of Gethsemane the opportunity to extend sympathy in a time of need, to gain an experience that would have been fundamental in their character, an opportunity to fortify themselves against coming emergencies. These opportunities Mr. Cooper told us are now presenting themselves to every one of us, and so far as they are being improved we are preparing ourselves for life and its duties and struggles, and so far as we are neglecting these opportunities we are unfitting ourselves for success in any great undertaking.

THE BATTLE CREEK IDEA



Vol. III No. 24

BATTLE CREEK, MICH., MAY 20, 1910

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PAWLOW, the great Russian authority on the stomach and digestion, has brought out

Hydrotherapy in Treating Disease

Use of Water as a Therapeutic Agent is One of the Chief Reliances of the Battle Creek Sanitarium

HYDROTHERAPY, or the treatment of disease with the use of water, is not by any

THE OLD MAXIM OBEY AND LIVE

Is Still in Force—Learn How to Live, and then Obey—A Lecture by Dr. J. H. Kellogg

THE maxim, "Obey and live," is just as true to-day as it ever was. The privilege of



A GROUP OF SANITARIUM PATIENTS

some very interesting facts with regard to the relation of mental influence on digestion. He has some dogs in his laboratory, and he made an opening into their gullets, and in some cases another into the stomach. He inserted tubes into these openings. He brings food into the presence of the animals that have the opening in the stomach, and scatters it round about so they can see it. When the

(Continued on page three)

means a modern fad. In its present form, hydrotherapy dates back to the days of Priessnitz, an Austrian peasant, who partly by accident and partly by intuition and the study of nature, conceived and introduced the practice of treating human ailments by the use of water. Priessnitz lived over one hundred years ago, and the idea was conveyed to him while a lad, by a traveling

(Continued on page four)

living is based on obedience to the laws of our being. So, if a man wants to live, the first thing for him to do is to find out how to live. He must learn what are the natural laws that pertain to his being. If you were to go to a bird store and buy a strange imported bird, you would inquire before you took it away, "What shall I feed this bird? What temperature does it require? How shall I take care of it?" You would get di-

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UNIVERSITY OF MICHIGAN

reactions all about it, and you would carefully follow all those directions. You would not try all sorts of experiments upon it. You would not say, "I think this bird needs a chew of tobacco," or, "I wonder if it wouldn't like some cigarettes." You wouldn't say, "I wonder if my bird would not sing sweeter if I gave it a little cold tea instead of cold water." You would not say, "This bird seed seems too insipid to feed the canary, without any flavoring; I think I will put a little mustard or vinegar, or pepperauce, or salt, or something of that kind on its food." You would say that a person who would treat a bird that way ought to be shut up in a lunatic asylum.

But that is what you do to your little boy or girl at the table. You do not say, "What is the natural thing for this little creature that has come to me?" But you be-

for the world, but we have only had a part of it.

CHRIST LIVED THE SIMPLE LIFE

when he was here upon earth. He was not brought up in the lap of luxury; he often slept out under the trees on the mountain side; he went about clad in simple garments; his food was simple; he was content with a little handful of corn as he was passing through the field, rubbing up the heads of grain between his hands—was content to make a meal of it; his tastes were simple. John the Baptist, his forerunner, was equally simple. He lived in the forest in a simple way, clad in the simplest clothing. He lived a natural life. If Christianity up to the present time had followed the example and the precepts of its Founder, it would have revolutionized humanity, and the world would have been entirely a different world from what we find it to-day. Disease

THE POINT I WANT TO MAKE

is that there is the same power for physical regeneration that there is for moral regeneration; it comes from the very same source, and is just as certain to produce those results if we go about it in the same way. If we neglect either the one or the other, there will not be a complete success. The Christian church is never going to succeed in its work until it takes charge of the whole man. We hear sometimes nowadays of institutional churches, where there are bathrooms, and facilities for exercise. There is a small effort being made to recognize the needs of the whole man, and to supply these needs, and I think that is a good tendency; but I fear that in the main it is simply an effort to do something different from what somebody else is doing in order to attract a little more attention; because it does not get down to fundamentals. The things that really influence the physical man are not brought to bear. If we will return to simplicity, return to nature, then we can be sure we will reap the reward of well doing. "Whatsoever a man soweth, that shall he also reap."

THE SURE ROAD TO HEALTH,

then, is to reform, to start with; and not only to reform for a little while, but to stay reformed. It is not only to reform for two or three weeks, or six weeks, or three months while you are in the Sanitarium, as a sort of reformatory or penal institution, but to reform definitely, permanently. That thing is absolutely necessary. A man who has become broken down simply because he has violated the laws of good digestion can not be cured by simply reforming for a few weeks; he must reform forever; he never would have had a bad stomach if he had not violated the laws of health. If his stomach gets well by temporary return to normal ways, the only guarantee for him that he will remain well is that he shall remain in the right road.

So, the certain road to health is, to reform, then to stay reformed. But there are helps that are necessary. There are many who have so far injured their bodies that simple changes of habits will not effect a cure. They must have something to help them out. For instance, here is a man who has used up his kidneys with smoking. Every man who smokes dies of smoking, unless he is killed accidentally. The man who smokes is taking into his body all the while quantities of nicotin that must be carried off through his skin and his kidneys. The kidneys and the skin, which are intended to carry off body wastes, are worn out because they are required to do work they never were intended to do.

Many a man uses his body in that senseless way; he uses his body to make money with, to have a good time with, to win a race or a fist encounter, and strains his body to the very last degree; or uses his body in smoking and drinking for mere sense gratification. When a man abuses his body in that way, he must certainly suffer the penalty. The body is just as certain to be worn out prematurely as though it were a delicate instrument of some sort used for purposes for which it was never intended. If we treated



HAVING FOOD AND RAIMENT, HE IS CONTENT

gin to experiment, and say, "Johnnie, wouldn't you like a piece of mince pie?"—one of the most villainous conglomerations that ever could go into any animal's stomach. It would kill a canary bird; it would kill a horse to feed him on mince pie. Very few dogs could stand it; but you feed that very thing to your little boy, and you expect it to make him a President of the United States, or some other great man!

HOW UNWISELY WE BEHAVE

in our treatment of ourselves. Custom has blinded our eyes until we have lost our finer conscience, until we have become degenerates in a certain sense; and the thing more necessary than anything else now is to preach a return to nature. There is nothing so important, it seems to me, as that very thing. The Christian religion has done great things

would have been practically eliminated. There would be no poverty, for everybody would have enough of every needed thing, and indeed there would not be any necessity for money. Social evils, physical evils, and moral evils would long since have been banished from the earth.

The Founder of Christianity sent forth his followers to disciple all nations. Had Christians continued to follow the example and precepts of their Master, the world would have been completely redeemed; we would see very little of what we see to-day. But Christian teachers have not followed in their lives the simplicity of their Master. The principles we are trying to uphold in this institution are, we believe, an essential part of Christianity, a part of the great religion taught by its Author.

our watches as badly as we do our bodies, they would very soon cease to be of any service to us.

THE MARVEL IS NOT THAT WE ARE SICK,

but that our bodies endure so much. Knowing what I know about the physiology of the body, about the hygienic conditions required by the body, I have become thoroughly persuaded that the human being is one of the most enduring animals that lives. There is no other animal that continues to live under conditions so utterly unnatural to it as does man, especially the average city man.

Instead of living one hundred and fifty years, as we ought to do, we are only living on an average about forty years. We ought to live until we wear out, or die of old age; but nobody dies of old age, unless it is premature old age. The man whose body has been worn out prematurely must have help in order to recover. If his kidneys are damaged, he must have sweating baths to help his skin, and take other special applications to help his kidneys. He must see that his diet is so constructed and arranged that it shall not overtax the kidneys in the least degree. His kidneys must be as lightly loaded as possible. He must see that his habits of life are absolutely in accord with the demands of the Being who made us, as expressed in the physiology of our bodies. If a man will do that, he will get well.

THE PHILOSOPHY OF THIS INSTITUTION

is to recognize the fact that God is the Healer, and that God's laws are the principles that we must follow; and that the forces of nature, which are simply God himself at work, are the powers by means of which a man who has become the victim of disease, may be rescued. A man talked with me a little while ago who had a pain in his back, and he said, "I have been to all the great doctors in New York, and they did not do me any good. Do you think you can cure me here?" I looked him over—there was no degeneration, no evidence of any organic disease anywhere; and I was glad to say, "Why, certainly, my friend, certainly you can get well. You are just as sure to get well as the sun is shining, if you do your part." "All right," he said, "I will do my part." And a few days later the pain was gone.

There is hope for the sick man if he will only take the right position, the right attitude; if he will say, "I have been doing wrong; I will cease to do wrong; I have been cultivating disease; I will cease to cultivate disease; I want health, and I will work for health, and cultivate health." The man who will do that is certain to get well. The only way one can ever get health is by steady, progressive training and development of the body. The heart, the stomach, the liver, kidneys, skin, and all the neglected, degenerated organs must be brought up into the highest state of efficiency and activity by training. That thing can just as certainly be done as the mind can be trained. It is just as easy to train the stomach as it is to train the mind. I am glad to say my physical conscience has been educated to the point where if I know a thing is harmful, that is

enough to make it distasteful to me. If I know it is harmful, I can not endure the thought of eating it. The very fact that a thing is wholesome makes it attractive to me, because it is wholesome I learn to like it.

PHYSICAL BACKSLIDERS

Some people say, "I can not get along with this plain food, and when I go home I am going to have my old food again." I want to say to you, my friends, if you become a backslider, you are sure to get the backslider's reward. You are only going to be well by cultivating health, by getting hold of the great principles that underlie the physical regeneration that we are trying to secure for you. Then plant your feet firmly upon those principles, and stand there.

It is a simple thing, it is only to cease to do evil and learn to do well. But you must keep right on doing it. If we will do that thing, we have the promise of the Almighty behind it. If we cease to do evil, and learn to do well, if we obey we shall live. We must stick right to that principle. That is why the Sanitarium tries to set a table that will be an example to you. We have a large variety of food so you can see what a great variety of good, wholesome things can be provided in the simple life and be in harmony with natural laws and principles, so when you go home you can have an attractive dietary, and you need not feel that you have to be ascetics or faddists. There is a great variety of wholesome, palatable, sweet, toothsome things. "Eat ye that which is good," the Bible says, and we have plenty of good things to eat. God never intended we should eat things we dislike. And we hope our friends who come here will go away as missionaries of the better way, not only for their own good, but for the good of others with whom they come in contact.

THE EFFECT UPON DIGESTION

(Continued from page one)

animals see the food the gastric juice starts to flow from the stomach, pouring out in a little stream into a receptacle until quite a large amount is collected from these animals just because their looking at the food stimulates the secretion of gastric juice. This he calls "psychic juice."

PSYCHIC INFLUENCE

Again, he would feed the animals the food, and instead of the food going into the stomach it would pass out of the opening in the gullet, and would be fed to them again, and they kept on enjoying their meal but getting really no food because it passed out through the tube and did not go into the stomach at all. Experiments of this sort indicate that the psychic influence in connection with the taking of food has a wonderful effect on digestion. It is more than that; the influence has the result of stimulating the nerve of taste. Pawlow made many experiments of this sort. Some of these we have worked out in our own laboratories, and all go to show that the state of the mind has a wonderful effect on digestion. So, in order to get the most out of our food, we ought to enjoy it.

But it is well so keep in mind at the same time that we should have a normal taste. There is such a thing as an abnormal taste. If a man accustomed to drinking whiskey and eating highly seasoned foods should come up to the Sanitarium dining-room and eat our foods in which the usual condiments, pepper, mustard, vinegar, chili-sauce, etc., are conspicuously absent, he might not like them, they would taste flat, plain; and sometimes such men balk at it and go off, they can not stand it. Such men have cultivated an abnormal appetite; they are living an artificial life. The sensation of taste is abnormally stimulated. I may be allowed here to refer to my own experience. I have not eaten pepper for a good many years. If I should take a small amount of pepper, it would be quite unpleasant to me. But a man who is taking pepper and all of these things can take considerable of it and seem to enjoy it. I speak of this to illustrate the fact that we can develop abnormal appetites by using these highly seasoned foods. At the same time, foods should be palatable, they should be agreeable, in order for us to get the best out of them. We should enjoy our food, and that enjoyment should be in the right, natural, and proper way, without any artificial stimulation.

There are elements in our food that are called enzymes. An enzyme is something that causes chemical changes to take place in other substances besides itself; the pepsin in the stomach in a sense is an enzyme. Food in a natural condition usually has a good many of these so-called enzymes, which are important factors in digestion; and in cooking many foods these enzymes are destroyed; and I am sure there is a scientific reason for our eating at least some raw food. I do not advocate the eating of raw starch. We can not digest it. And yet it is a good plan to take some raw food every meal, such as fruit, salad, lettuce, or something of that sort, because in the raw foods we get these enzymes, which are not in the foods that are cooked.

DIGESTION

The purpose of digestion is to prepare the food so that it can be absorbed into the blood and carried to the tissues. The whole digestive process is on the debit side of our account in the economy of the body; that is, digestion is an outlay, it is an expenditure. Of course, we finally get returns when the food is absorbed. Many people think that when they get their food into the stomach that the body is then making use of the food. That is not true, because in one sense food in the stomach is still outside the body. A man does not get any good from his food while it is in the stomach, any more than when it is on the table before him. He may be a little more sure of it, but he does not get anything out of it. He has to digest it; he has to work upon it, and go to the expense of getting it ready to be used by his body. So that the digestive processes of the body are on the debit side of the account in the economy of the body, and they consist of a series of physical and chemical changes by which the food is rendered absorbable.

A long tube passes through the body that we call

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A FEAT OF ENDURANCE

EDWARD PAYSON WESTON has been before the people of this country for nearly a generation as a champion walkist; and now at seventy-one years of age has completed the remarkable feat of walking from Los Angeles to New York City Hall, bearing a letter from the mayor of the California city to Mayor Gaynor. He completed this task in seventy-seven days, the distance being 3,480 miles, giving an average of forty-five and one-fourth miles per day.

During the latter part of his journey the aged pedestrian attracted a great deal of attention, and along his march through the streets of New York vast throngs of people vociferously cheered his steps. Mayor Gaynor received Mr. Weston at the top of the City Hall steps, and in a welcoming speech paid a tribute to the bravery and endurance of the man who at that age had accomplished a task that has not been equaled in modern days. Among other things, Mayor Gaynor said:

"People ought to do as you have done. I am proud of you. The whole world ought to be proud of you. Your achievement is marvelous. There was never anything like it in the history of the world. You are a benefactor to the human race, for you have shown people what can be done by a man who lives simply and healthfully in the open air. You have made people go out into the open and taught them how to live. If they will follow your example they ought to live to be one hundred years old, instead of dying at the age of fifty, after living the last few years of their lives as cripples and invalids. You have surpassed every feat of ancient and modern athletes except your own."

Handing a letter to the New York postmaster from the postmaster in Los Angeles, Mr. Weston remarked that the letter was fifteen days ahead of time; to which the postmaster replied that so far as he was aware that was the first time in history that a letter had been delivered a fortnight before it was due.

The pedestrian is not simply famous as a walker, but he is more notable as an exponent of the benefits of the simple life. He

lives very near to the right principles of living, and thus his vigor and strength are preserved to him. His life is an object lesson which all men would do well to note.

THE EFFECT UPON DIGESTION

(Continued from page three)

THE ALIMENTARY CANAL.

It is about thirty feet in length, and the food passes down through this tube, and the lining of that tube is really very much like the skin that covers the body. It is the internal skin. And food in the stomach is on the outside of the body quite as much as it is when it is in your hand or any other part outside. We do not get anything out of the food that we take into the stomach until after it passes out of this tube into the blood. By that I mean that the food must pass out of the intestines into the blood before it is used at all, or before it is really inside the body, so far as furnishing energy or anything else that can be used is concerned.

This tube has connected with it a number of glands. For instance, the liver is the largest gland in the body, weighing at least three pounds. This gland has connected with it a tube that passes into the intestines, and the secretions of bile from the liver pass through this tube and produce some changes in the food. Then there is the pancreas on the other side of the abdomen. That also has a tube passing from it into the intestine, and the secretion from the pancreas is poured into the small intestine. In the mouth we have the salivary glands, and the saliva is secreted and passed into the mouth. In addition to these, the tube itself is lined with a layer of glands that secrete a fluid called intestinal juice, which is mixed with the food. The mucous membrane of the stomach contains a large number of glands, and the secretion from these glands is called the gastric juice, the active principle in stomach digestion. So you see the alimentary canal has a number of appendages that furnish the tube with some of the fluids that have to do with digestion of foods.

With our food, we take

BOTH MATERIAL AND ENERGY.

The body is a sort of a sifter that selects the energy and the material that it can use out of the food, and the rest of it passes out of the body, and sooner or later it all passes out. The energy remains in the body for a time. By and by it passes out in the form of heat. The digestion of starch begins in the mouth. The saliva converts starch into maltose. We chew the food, which is mixed with the saliva, and then we swallow it into the stomach. The acidity of the gastric juice very soon neutralizes the alkalinity of the saliva and with that the action of the saliva ceases in the stomach. If we swallow food that is made up of starch into our stomach, it is accompanied by the saliva that we have mixed with it in the mouth; and its action, begun in the mouth, continues in the stomach for about a half hour in the normal

stomach. In the case of the person who has an excess of hydrochloric acid in his stomach, the alkalinity of the saliva is soon neutralized by the excess of acid in the stomach, and starch digestion is too quickly stopped in the stomach and the person has starch indigestion, he has acid dyspepsia; he has a heavy feeling, and acid eructations and indigestion, and feels as though he had a load there. This is more prevalent in young people than in others.

WHAT ARE WE TO DO FOR SUCH A CASE?

We can do several things. First of all, we will not give him coarse foods and poorly cooked starches. We will allow him to have dextrinized foods because they are more easily digested. Now sugar, particularly cane sugar, stimulates the flow of the gastric juice. So this man who has an excess of acid ought not to take cane sugar, at least he ought to take it very moderately, and in fact he ought to take moderately of all kinds of sugar. I think the maltose or malt honey is the best form of sugar to take, yet this should be taken in moderation, because an excess of sugar of any kind tends to stimulate the flow of gastric juice. He ought not to eat acid fruits, not because the acid in the fruit in any way takes the place of the acid in the stomach, but because the acid in the fruit will tend to irritate the mucous membrane of the stomach, and that causes the secretion of more acid. We tell him to take plenty of food containing oil, because it has been demonstrated by actual experiment that fats lessen the gastric secretion, and so we allow him to take quite freely of olive oil, or cream, or butter, or even nuts that are rich in fat; these are all allowed. He should not eat any irritating condiments like pepper, mustard, etc., because all of these stimulate the gastric juice.

The protein elements of food in cases where there is an excessive amount of acid should be kept low, for the reason that the protein elements in the food invite the secretion of more acid. Hydrochloric acid digests protein; if you eat a large amount it calls for more acid, and so the protein element of the food in these cases should be kept low. The use of salt should be guarded; one should not take much salt, and the reason for that is this: Hydrochloric acid contains hydrogen and chlorin, and salt has sodium and chlorin; there is chlorin in both. Salt furnishes the element for making more acid, and so salt should not be taken except in small amounts, if taken at all with the food. There is usually plenty of salt in the food naturally. These are some of the important considerations for the individual who has an excess of acid.

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HYDROTHERAPY IN DISEASE

(Continued from page one)

tinker who treated a wound on the leg of his father's cow by the use of water, speciously covering up the true secret by the use of certain pretended magical words to which he cunningly attributed the results which speedily followed.

Young Priessnitz bought the secret, paying a large price for the mysterious lingo, but afterward discovered the truth that the virtue lay in the water and not in the words he uttered. This young man, without learning, became famous throughout the world, and gradually built up and established an elaborate system, employing the rudest implements and apparatus for the administration of the various forms of cold baths.

Water-cure for many years consisted in the use of cold water exclusively; but in recent years it has been found that the application of cold water is a one-sided and lame use of the scientific physiological principles which are represented in the true practice of hydrotherapy. It has been discovered that the healing virtue does not lie in the water itself, except to a limited degree, and then only when it is required as a depurating agent. The reputation which certain waters, impregnated with mineral substances, have gained, is largely artificial and has no more merit than belongs to the application of minerals and drugs which the waters themselves contain, with the addition of the depurating effect which the copious use of water frequently produces on diseased conditions.

But, generally speaking, the benefits to be derived from the use of water in the treatment of diseases are the stimulating effects upon the vital processes exerted by heat and cold. Moist heat and moist cold have a peculiarly penetrating effect, and they are conveniently administered with water as a medium. Water may be easily applied at any desired degree of heat or cold, as hot as can be applied to the human tissues, and as cold as will be tolerated without serious damage. Or, in other words, all degrees of heat from 212 F. to the temperature of ice are easily expressed in water and by its use may be readily conveyed to any part of the human system, and the effect of these applications is most marked without carrying with them any injurious effects, or leaving any undesirable results.

The stimulation caused by the use of water is perfectly natural, it being simply the incitement of natural impulses to vital activity. In this fact there lies an essential difference between the use of water and the use of poisonous drugs for producing the same effect.

The application of heat and cold acts directly upon the vasomotor nerve centers which control all of the vital activities of the body. If it is desired to control the circulation of the blood, diverting it from a congested point, it is easily done by the application of hot or cold in a way to attract the blood toward the heated surface or repel it from the cooled surface. This may be done not only upon the surface of the body, but also upon the various viscera through the intricate network of nerves which communicate between the skin and the internal organs. The circulation of the blood in the internal organs may be just as readily controlled as the circulation of the blood in the skin. While the extremes of heat or cold act as a nerve stimulant, the neutral degree of heat acts as a sedative in procuring quietness of the nerves.

This is not the place for the discussion of the philosophy of hydrotherapy, which has in late years received the thoughtful attention of many scientific men, and its possibilities for controlling diseased conditions and promoting healthful activities have come to be generally recognized by the intelligent medical profession over all the world. The time was, not many decades ago, when the word "water-cure" was a term of reproach, a laughing stock and a derision, but that time has passed away and the scientific application of water is now approved of by all intelligent physicians.

At present the application of hydrotherapy in private practice as the physician goes from house to house, is not considered very convenient, the principal reason being that there are comparatively few who are conversant with the methods and the science of the applications. There is no other good reason why hydrotherapy should not come into general practice, for every house is provided abundantly with the necessary means and implements for the use of this most potent remedy. But in an institution like the Battle Creek Sanitarium the facilities that may be provided for the application of water in the treatment of disease are very complete and hydrotherapy is practiced successfully and readily in all its forms.

The recognition and understanding of a few fundamental principles are essential in the use of water in combating disease. Without this harm may be done, for the effects produced by so apparently an innocent thing as a water bath may be very marked, and if ignorantly applied may be very mischievous. Among these principles are the following considerations: The short application of cold is an excitant, and serves to arouse dormant vital action; it is an effectual tonic. The prolonged application of cold is depressing. The brief application of heat induces the flow of blood, while the prolonged application relieves congestion and reduces painful conditions. Prolonged heat reduces inflammation by enlarging the blood-vessels and encouraging the free flow of blood. The application of cold reduces inflammation by contracting the blood-vessels and inhibiting the congestion of the parts to which it is applied. Cold applications, not prolonged, excite nervous activity, and hot applications relieve the pressure upon nerve centers and flaments.

The local application of heat may be effected by the use of cloths wrung out of hot water, called fomentations. The general application of heat to the whole body or a large portion of it is done by means of blankets wrung out of hot water, in which the patient is closely wrapped. The stimulating effect of cold may be applied in the shower, and douche or spray, while the full or general tub bath is employed in producing sedative effects, as well as in administering milder and general measures both tonic and alterative.

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WHAT is a cigarette? If all those who are slaves to the cigarette would prepare themselves to give an intelligent answer to this question the manufacturers of the deadly objects would soon go into bankruptcy. Have

THE CIGARETTE

BY CHAS. RACE

WHAT is a cigarette? If all those who are slaves to the cigarette would prepare themselves to give an intelligent answer to this question the manufacturers of the deadly objects would soon go into bankruptcy. Have

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ing studied this question by experiments, data, and analysis, I conclude that the common term of "coffin nails" is rightly applied. In more specific language, it may be said that a cigarette is approximately a gram of a deadly poisonous mixture encircled by a wrapper containing another deadly poison. Chemical analysis shows that the tobacco leaf contains an unusual number of poisonous constituents, such as hydrochloric, sulphuric, acetic, oxalic, picric, and ulmic acids, and nicotine.

The most noxious of these elements is nicotine, which is found in quantities varying from two to eight per cent in dried tobacco leaves. It produces death more quickly than any other poison except prussic acid. Four drops in an alkaloid form is sufficient to cause the death of a dog in five minutes. Two or three drops in the human stomach will produce death in an equally short time. That form of death is not to be sought, however, by the suicide, for it is the most fearful death that can be imagined. Every muscle of the body is in excruciating spasms of contraction, the larger muscles predominating, thus producing characteristic contortions and the utmost agony until death comes as a welcome release.

In reply to the question, Why, then, do we not see more frequent examples of this deadly work? it is sufficient to refer to the fact that the body is well supplied with defences against such poisons. These forces act in such a way that when one of these elements presents itself the organism at once goes to work producing an antitoxin to neutralize the poison, and makes extraordinary efforts to eliminate the poison and cast it out. The boy smoking his first cigarette remembers all about this. Taken at first in small doses, the system is able to meet and counteract the deadly effects.

But as the use of tobacco is persisted in, the system gradually fortifies itself as much as possible, the nervous system accustoms itself to the presence of the intruder, and before the boy is aware of it "the jaws of habit" are fixed upon him, and Professor Nicotine begins his work.

The body has fought the intruder so long that it has become weakened and acquired an aptitude for it, and if, as is usually the case, the tobacco habit is established before the person has obtained his physical growth, the body becomes stunted in its development, and day by day, step by step, each cigarette increases the characteristic pallor and the downward curve of the corners of the mouth as the victim descends the steps of immorality and degradation.

Nicotine affects the higher centers of the brain first, and the individual addicted to the cigarette loses his stability of character, his will power and motive which distinguish man from beast. Could we but cause our boys to stop and listen or reason, it seems as though they would be persuaded to avoid the downward way.

The ordinary paper which forms the wrapper of the cigarette is bleached in a solution of arsenic, a poison which accumulates in the system and gradually works great harm. The presence of arsenic in the paper is detected by the fact that in contact with hydrogen sulphide it forms a yellow com-

pound, and this explains the yellow areas on the fingers of the smoker which hold the cigarette while he is smoking, the hydrogen sulphide being provided by the perspiration of the fingers.

The symptoms produced by this drug in chronic poisoning, as in the case of cigarette smoking, are: the person complains of sickness and faintness; the eyelids puff; the white portion of the eye, the conjunctiva, becomes reddened and the eyes become very sensitive to light; digestion is affected, as is shown by the occasional vomiting, colic and chronic diarrhea; the color fades from the face, the complexion becoming waxy; the person is said to have a wasting fever; progressive weakness and loss of weight prevail throughout; the hair becomes dry and may fall out; the nails are brittle and loose; the skin may exfoliate or show spots of darker hue with eruptions of eczema or erythema; the mouth may lose patches of mucus membrane from ulcers, etc.; the throat, nose, and bronchial tubes may be affected with a catarrh, causing cough and bloody expectoration.

These symptoms become more and more grave until paralysis results and death is finally produced by failure of the heart. An ordinary casual observer will notice these

conditions, and every person who is addicted to the habit is more or less conscious of it. The production of other harmful compounds due to the combustion of tobacco, should also be taken into consideration in this discussion. Probably the most deleterious among these is carbon monoxid, which is present in high proportions in tobacco smoke. This is the element which produces death by asphyxiation with common coal gas. Carbon monoxid forms a stable compound with the elements in the blood, which carry oxygen to the tissues and when inhaled as in smoking, can not help but have a harmful effect upon the or-

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Among other special advantages offered are laboratory instruction in bacteriology and chemistry, the use of the microscope, urinary analysis, practical course in cookery and dietetics, medical gymnastics, swimming, anthropometry and open air methods. Applicants received whenever vacancies. The next class will be organized the first of April, 1910. For full information address

Sanitarium,

Battle Creek, Mich.

Original from

ganism. Very few smokers have failed to notice the shortness of breath and dizziness produced by inhaling a few "puffs" of the smoke. This is probably due to the inhibitory effect of this compound on the respiratory center.

In a large university the coach of the football team made an announcement to the students to the effect that cigarettes were more harmful than whiskey, and any young man who expected to make the track or football team would better "cut them out." If these facts could be thoroughly instilled into the mind of every youth, and they be made to understand that no person who wishes to rise morally, physically or mentally should addict himself to the use of the cigarette, and that no one who has the welfare of humanity at heart should put temptation in the way of others by indulging in this habit which is contrary to all the laws of nature, this terrible habit might soon be abolished. It is responsible for the utter demoralization of its victims, who soon come to be known as "cigarette fiends," whose pale faces, shattered nerves, hopeless positions in the community define the condition of so many of our American youths whose opportunities for usefulness and happiness have been blighted.

QUESTION BOX DEPARTMENT

EACH Monday evening Dr. Kellogg conducts a Question Box talk in the Sanitarium parlor, where all guests and patients are at liberty to submit questions relating to health and health topics.

Q. What consistency of food will start the flow of saliva?

A. Dry food is the most highly stimulating of all substances. Dryness is the most powerful of all stimulants for the salivary glands.

Q. Is it healthful to chew gum?

A. I would not say it is not healthful to chew gum a little while after dinner, if you have forgotten to chew your dinner. You may chew gum for half an hour or an hour after dinner, but you should retire to some secluded place, so that it will not be a disturbance to other people. Nevertheless, it will be better to chew the dinner. If one chews gum a great deal, he will not have saliva enough with which to chew his dinner.

Q. When I walk twenty or thirty minutes and get my blood warmed up, it causes my flesh to burn between the shoulder blades. What is the cause of this?

A. It probably is what is sometimes called nettle rash. There are persons whose colons are all the time producing toxins, which, when brought in contact with the nerves of the skin, cause vasomotor irritation there—a disturbance which makes this nettle rash. When there is pronounced activity, the skin is more active, because there is more blood brought into it; so irritation is likely to be produced.

Q. Do you find any among your patients who were formerly meat eaters and who had to return to their former diet after having tried a meatless regime here for some months?

A. No, I never found anybody who *had* to do it. I am very sorry to say that I have known some people who *did* do it; and I am very sorry for them, too. But I have not known anybody that *had* to do it. It is never necessary; meat is an unnatural, unwholesome and entirely unnecessary article of food.

Q. Which is the better food, milk or cream?

A. It depends on your case. If you have intestinal autointoxication you would better not eat too much cream, because it tends to promote putrefaction in the intestines; and if you have hypopepsia it will be aggravated by too much cream. Also, a large amount of milk is not wise, because it would furnish too much protein. If you are going to eat milk in any form, it would better be taken in the form of buttermilk, or, best of all, yogurt buttermilk.

Q. Does carbon monoxid when inhaled in cigarette smoking have any other effect on the respiratory center than forming a stable compound with the hemoglobin in the blood?

A. No; but that is bad enough. Who wants to have carbon monoxid form a stable compound with his hemoglobin? Just think of it! The hemoglobin is very essential for life, and when carbon monoxid combines with the hemoglobin, it spoils it so it never can be useful any more; in fact, it ruins millions and millions of blood corpuscles. That is what makes smokers short of breath.

Q. What causes one to have dark, floating spots before the eyes?

A. Autointoxication.

ARRIVALS

THE following people arrived at the Battle Creek Sanitarium during the week ending May 15: Mrs. Richard Cronin and Mrs. Laura Cronin, New York City; H. C. Arnett, Ohio; J. T. Browne, Brooklyn; Ellathesa Spofford, Mich.; Mrs. Henry R. King and Virginia King, Wash.; James H. Dickson, Ceylon; Dr. and Mrs. C. P. Sayles, Mich.; Dr. R. Leith, Kan.; E. J. Ruchan, M. D., Wis.; C. W. Pidecock, Ga.; Mr. and Mrs. W. J. McKone and Perry Allen, Mich.; Roy Heath, Mich.; R. E. Chapel, O.; Geo. Jewett, Mich.; Ellen Adams, O.; Lewis C. Schaeffer, Ind.; Rev. H. W. Brunell and wife, Ky.; R. E. Scott and Mrs. Scott, Ind.; J. J. Nathan, wife and nurse, and Mrs. A. Sevy, Texas; J. G. Long and wife, Wash.; Dr. J. M. Louther, Mrs. Louther and Margaret Louther, Pa.; Miss A. L. Thomas, Boston; Fred Wisen, Peter Nystrom, Mich.; Clara Kohn, Chicago; Banning Gray and wife, Ky.; Jas. A. Alexander, Miss.; Geo. C. Howe, Minneapolis; Geo. E. Cook, Ill.; W. J. Slayden, Agnes Slayden, N. C.; Mrs. Geo. E. Judd, City; J. P. Swogger, Pa.; Mrs. M. R. Baskerville, S. D.; Dr. M. B. McCrary, Tenn.; C. G. Loughry, John Hoffa and Edward W. Biddle, Pa.; Mr. and Mrs. C. E. Rauson, Ia.; Ab. Sprunger, Mrs. Sprunger and Lucretia, Ind.; A. M. Davidson, Chicago; James F. Wilson, Wis.; Mr. and Mrs. J. H. Baynes, O.; W. D. Smith, Jr., Mich.;

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The Battle Creek Sanitarium School
of Health and Household Economics

BATTLE CREEK
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Mr. and Mrs. Wm. R. Harryman, Ill.; August Sonesson and Mrs. Sonesson, Pa.; P. T. Dumbley, Pa.; A. K. Wells, Tenn.; J. J. Boyd, W. Va.; Wm. Burtless, E. M. Conklin, Mich.; Rev. Joseph and Mrs. Adams, Mass.; Mrs. L. C. Harding, Ind.; J. C. Rizer, Colo.; W. F. Johnston and wife, and Mrs. Mary Adams, Toronto; Mrs. Luella King, Tex.; Mrs. Lulu Richardson, Ill.; Mrs. Frank Royce, J. H. Shirk, Ind.; Wm. M. Schael, Chicago; Miss A. Browning, Mich.; J. W. Mitchell, N. Y.; Mr. and Mrs. Chas. A. Eaton, Mass.; Geo. W. Putnam, Mass.; Maggie Cashmore, City; B. F. Burtless, Mich.; S. P. Bush, O.; Miss M. A. Brewer and Miss E. H. Brewer, Mass.; Dr. W. P. Terrell and wife, Mo.; E. K. Ludington and wife, Mo.; Mr. and Mrs. P. B. Keith, Mass.; Mrs. M. C. McIntire, Ill.; A. F. Vila, Mich.; Mrs. Wm. Smither, Ind.; Mrs. P. Y. McCoy, Ind.; J. Webster and wife, Minn.; Albert N. Ford, City; M. Kazmaner, New York City; M. Saberd, M. D., and B. Wolf, Chicago; J. T. Craig and daughter, Ark.; Frank Kleckner, Ill.; Mrs. F. B. Pillsbury, Mich.; Mrs. Geo. E. Pillsbury, Milwaukee; Mrs. John Bursk, Ill.; John H. Maston, Mich.; L. E. Blake, Chicago; G. H. Cole, Duluth; J. M. Barker, Ind.; Mrs. B. E. Owens, Milwaukee; E. M. Owens, W. Va.; Mrs. J. W. Walton, Jr., Ill.; A. W. Grobe, Milwaukee; Etta Stewart, Mich.; Miss Lucile Coon, Ill.; Lewis Mason, Chicago; C. E. Burtless, Mich.; L. C. Harding, Ind.; H. E. Ambler, Chicago; Mrs. W. W. Hollinway, Mo.; Mrs. O. A. Ramsey, Neb.; J. S. Hotton and E. M. Bryant, Chicago; D. D. Bowher, Ind.; J. B. Lallande, Mo.; A. B. Greenwold, M. Greenwold and Mrs. M. Maguns, Calif.; D. Matthewson,

Neb.; Margaret E. Lauson, Mich.; F. H. Farasey, Cleveland; E. W. Dollman and H. P. Egan, Pa.

News and Personals

Mrs. Dr. Eggleston and her sister, Miss Neal, of the mailing department, have gone to Iowa for a month on a visit to their parents.

Mrs. Henry R. King, of Seattle, Wash., an old friend and patient of the Sanitarium, is again with us. Mrs. King is accompanied by her daughter Virginia.

Mrs. Fanny E. Dowkontt was in attendance at the Northern Baptist Convention held in Chicago during the last week, and reports a very interesting and profitable meeting.

Mr. and Mrs. J. J. Nathan, of Beaumont, Texas, are stopping at the Sanitarium for rest and treatment. They are accompanied by the latter's mother, Mrs. A. Leavitt, of Jackson, Miss.

Mrs. M. S. Foy and Miss Charlotte Dancy, respectively superintendent and assistant-superintendent of the Sanitarium Nurses' Training School, are in New York attending the annual meeting of the National Nurses' Association, and also a meeting of the Nurses' Alumni Association. They expect to be absent about ten days.

Miss Daisy Stanford, of England, who has for six years been connected with an or-

phanage work in Western India, addressed the Sanitarium family in the parlor on "The Womanhood of India," giving a graphic account of the conditions prevailing there, and showing the effect that Christian influence is having upon womanhood in that country.

The Sanitarium family of guests includes quite a number of physicians at present. Among them we note the following: M. Saberd, M. D., Chicago; Dr. and Mrs. C. P. Sayles, Kalamazoo, Mich.; Dr. R. Leith, Manhattan, Kan.; E. J. Ruchan, M. D., Racine, Wis.; Dr. J. M. Louther and family, Somerset, Pa.; Dr. W. P. Terrell and wife, Huntsville, Mo.

Rev. Jos. Adams, of Hanchow, China, accompanied by Mrs. Adams, visited the Sanitarium for a day during the past week. They were passing through the city from Chicago to Massachusetts, and called to form an acquaintance with the institution and its work. These people have been missionaries in China for thirty-five years. One of their sons purposes to enter the American Medical Missionary College at the beginning of next year. Doctor Adams addressed the medical students in chapel on Friday morning.

A great improvement has been made in the Sanitarium lawn by the removal of the three cottages which occupied the south part of the lawn on Washington Avenue. This change opens up a fine vista to the eye as one ascends Washington Avenue, with the Sanitarium in the background. Walks have been laid out on the new lawn, and shrubbery set out in clumps. This new and notable improvement adds very greatly to the beauty of the Sanitarium premises and will be greatly appreciated by the summer guests, besides giving new evidence of the artistic taste and skill of the Sanitarium greenhouseman, Mr. Vandevoort.

The Sanitarium family was privileged to listen to a very instructive discourse from Rev. J. P. Jones, D. D., of Madura, South India, on the subject of "India's Unrest." Doctor Jones has had a long and extensive experience in missionary work in that country and is well qualified to speak upon the existing conditions. The speaker claimed that the spirit of progress which has aroused other Eastern nations is obtaining a strong hold upon the Indian mind and is awakening in the hearts of young India the aspirations to follow in the footsteps of Japan. India is dissatisfied with its dependent situation, although the British rule has been characterized by great wisdom, and has done much for India and her people. The religions of the East no longer satisfy the inquiring mind of the educated Brahmins. Christ is come to have a larger place in their thought. India has for centuries been a country of thought and not of action; as one writer expresses it, "India has looked up from her meditation to watch the marching nations pass by, and then has bowed her head again in silent contemplation, but at last India itself is being aroused to a sense of her power and opportunities."



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THE BATTLE CREEK IDEA

Vol. III No. 25

BATTLE CREEK, MICH., MAY 27, 1910

Price 2 Cents

THE PHENOMENON OF NATURAL SLEEP

Dr. W. H. Riley Lectures on the Nervous System and the Causes and Quality of Natural Sleep

SLEEP is a condition of the nervous system during which all of its important functions are at rest. Sleep is really a very im-

The Cause and Cure of Colds

Cold Air Not the Cause—Low Bodily Resistance the Responsible Factor

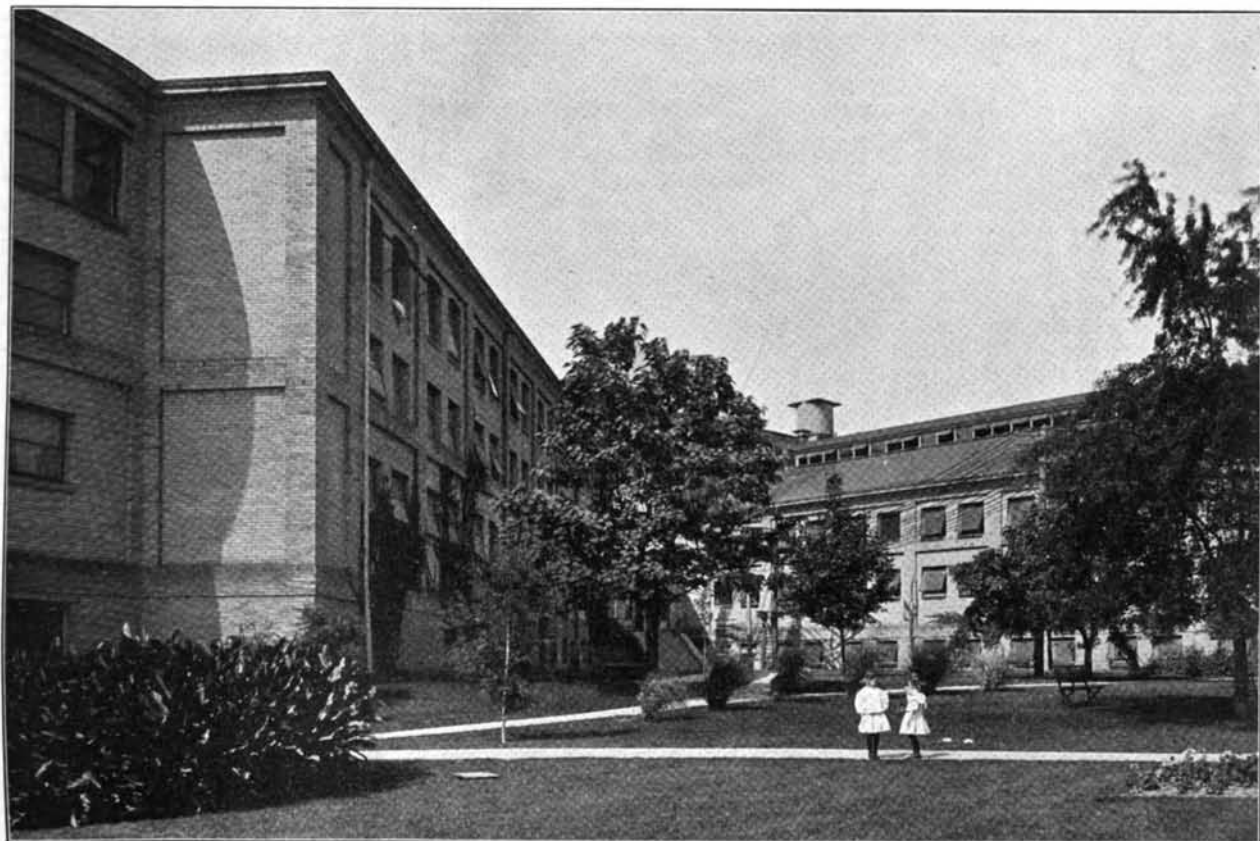
[Taken from a lecture in the Sanitarium parlor by Dr. J. H. Kellogg.]

A COLD is not a cold, it is really a fever. In what is commonly called a cold, the word

THE BATTLE CREEK SANITARIUM METHODS

Not a Routine of Baths; but a Scientific System of Investigation and Procedure

THE Battle Creek Sanitarium method is a system of training which aims to restore health by removing the causes of disease



SANITARIUM REAR LAWN

portant matter, one to which we, perhaps, do not pay sufficient regard. People are apt to think more of their stomachs and nerves and muscles and do not associate sleep very closely with the welfare of the body. And yet it is very closely related to the healthy action of every bodily organ.

In order to understand the function of sleep, we should first know something about

(Continued on page five)

"cold" is a misnomer, and we ought to have some other name for it. It is the general impression that a cold is due to exposure to cold. The worst colds are often contracted when one is not exposed to cold at all. A cold is really an infection, a chill, which takes place because one happens to be at that particular time in a state of low resistance, so he is susceptible to disturbances of

(Continued on page three)

and aiding the body to remove the effects of disease by establishing natural conditions.

Notice, in the first place, that the Battle Creek Sanitarium method is a system; it is not a routine. People come here and say, "I have been up to Hot Springs and taken a course of baths there"; or, "I have been down somewhere in Indiana to some mud springs and had a course of baths, and now I have come up here to take your course. How

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long is your course?" They have an idea that we have a course of baths lasting a certain number of weeks; that is the usual method at mineral springs, and most so-called health resorts. Go to Carlsbad, or Marianbad, or almost any of the European health resorts, and you find there a course of two, three, or four weeks. But

WE HAVE NOTHING OF THE SORT

here; that is not scientific or rational; it is simply a routine. Here every patient is examined, and the treatment for that patient is determined by the conditions as ascertained by the examination. No two patients are treated exactly alike; none of our doctors has a routine course to put his patients through. The prescriptions are adapted to each individual case.

What each patient needs is determined first by careful examination in our laboratories, which are the most extensive clinical laboratories in the world. I do not know of any place in the world where so much clinical work is done as is done in our laboratories. We have the most expert analysts to be obtained. Make a visit to the laboratories, and you will be surprised at the care, precision, and accuracy with which the work is carried on. It would be impossible to get such a report as is made in each individual case, and at such small cost, were it not for the fact that we have such a large number of cases to examine. It would take an expert chemist a whole day to make one such examination as is made in our gastric laboratory, but because there are a number made at the same time, the most complete apparatus is provided, and they can all be put through at once, saving a great expense. Our chemists are not paid five thousand or ten thousand dollars a year. This is a charitable, benevolent institution, and our chemists work for less than the salary of a laboring man. A carpenter, or a brick layer, receives higher pay than our expert chemists. They work here because the work is one that they believe in, and they believe in its principles.

CHANGE OF HABITS IS NECESSARY

Since most chronic diseases are due to wrong habits of life, the first thing essential is a complete change of habits and an effort to conform to the natural laws of health in every way. This is absolutely essential. Suppose here is a man who has been filling his body with poisons in the shape of intoxicants of various kinds, with poisonous condiments such as mustard, pickles, spices or something else equally bad. All of these wrong habits must be discontinued, they must be absolutely eliminated. The person who is in the habit of bolting his dinner, sitting down and swallowing everything that comes along, with no consideration of its wholesomeness or adaptation to his wants, just so it appeals to his sense of sight, smell or taste and causes the right kind of a tickle as it goes down, must radically reform his habits of eating.

It is absolutely impossible for people to get well, even approximately well, without correcting their wrong habits and turning away from those things that made them sick.

It is utterly impossible to recover from the effects of bad habits until those bad habits are stopped. There is not an invalid here that is not here largely because of his own wrong habits. I believe there was a man in the house who had gout, and who insisted it was his grandfather who drank the wine, and that he never drank any wine himself, and had lived a temperate life. But such cases are extremely rare. And it is quite possibly due to other causes; perhaps to beefsteak which his grandfather did not eat. All of these bad habits must be corrected if one wants to get the best results. A farmer could not expect to raise good crops on his farm if after hiring men to get the weeds out of his fields, he himself went out and sowed noxious seeds all over his farm.

THE PATIENT WHO SMOKES

That is exactly what the man does who comes here and gets the doctors and nurses to work over him in the office and bathroom, and then goes down to the park here and smokes cigars. And he will get nothing but tares for his harvest. If he has any wheat at all, it will be very little. If you sow for disease, you will get disease, and the only way you can ever get health back, when once you have lost it, is by cultivating it; and you may have to work at it hard and industriously for a long time to eradicate wrong habits and their dire effects. Mr. Ingersoll said that if he had been present when the world was made, he would have suggested that health be made contagious instead of making disease contagious, and he thought he had said something smart. But, my friends, it is exactly as Mr. Ingersoll wanted it to be. Health is contagious, far more so than disease. We are catching health all the time when we are cultivating it. We go outdoors and take in a deep breath of fresh air, and we are inhaling life and health. When we find pure, sweet water, we can just swallow health. Every drop of it has health, life and vitality in it. So when we eat the right sort of food, it is brimful of health. An apple, a peach, a plum, or a potato, or anything else that is fresh, wholesome, natural food, is brimful of health and life and energy; God put it there, and it has been crystallized from the sunshine, concentrated there in this food material; and when we swallow it, it is incorporated into ourselves. The process of eating, digesting and assimilating is a most marvelous example of divine transfiguration. Why, think of it! The things we eat to-day are walking around, thinking, and talking to-morrow.

SEVERAL LIFTS AT ONCE

After the physician has become thoroughly acquainted with his patient's case by summing up the results of the various examinations, he will prepare a carefully adjusted program of diet, exercise and treatment, in which many efficient measures are brought to bear simultaneously, each being given its proper time and place in the daily program, so that the patient will receive many times a day a lift toward recovery.

A lady said to me the other day, "Doctor, it is no use for you to prescribe baths for me; I have taken baths; I took one hundred baths at such a place, and it is no use for me

to take electricity either; I have taken electricity. It is no use for you to prescribe massage, for I have tried that until I was completely disgusted with it. I have had the rest cure, and that did not help me." She went on and enumerated nearly everything we have in the house, and said she had tried them all and they did not do her any good. I said, "Well, you do not expect anything to help you then?" "Not unless you have got something new," she said. I replied, "We have just one thing that will be new to you, and that is that we are going to apply to you all these things at the same time." The idea that you can not get any benefit from these things because you have tried them one at a time, is just like trying to raise a house with one jackscrew. You say, "I have worked hard with that screw, but it didn't do any good." But if we put several screws under the house and work them all together, that house will slowly rise.

That is just what we do here at the Battle Creek Sanitarium,—we bring together all the health-giving agencies known to science, and

GET THEM ALL TO WORK AT ONCE,

after first getting the bad-habits and the things that cause disease out of the way. We induce the patient to stop sowing for disease and begin to sow for health. That is the thing to start with. Then we must get our lifting appliances under the poor sick man and lift him up; we must get down beneath him and give him a lift with everything we can to help him out of his slough of disease. In this process of lifting people, water is one important means, electricity is another, massage is another help, mechanical and manual Swedish movements is another agent, exercise is another thing, and diet is another very important measure. All these different things working together produce the results we have here.

The scientific precision with which the various therapeutic measures are adapted to each case, and to each other, forms a chain of health-promoting factors, each link of which must be preserved intact. A man said to me the other day, "Doctor, you don't suppose one cigar three times a day would do me any harm, do you?" That would be mashing one link in the chain. He fancied he was going to be lifted out of the hole into which he had fallen, and carry his bad habits right along with him. I said to him, "My dear sir, your query reminds me of a ridiculous story. Two Irishmen were on a bridge, and in order to reach something on the water, one hung on to the framework of the bridge and the other climbed down and was held by his feet. The man holding to the bridge above shouted out to the man below, 'Pat, hold on tight now, while I spit on me hands.' So this man wanted to be allowed three cigars a day to go out and let go of his support while he smoked. While that man was smoking he was cultivating disease, absolutely letting go of all that had been done for him, letting himself down deeper into the rut we were trying to get him out of; and that is exactly what happens whenever a person indulges in any wrong habit that has been making him sick.

Here is another man who has been drink-

ing too much at his meals, and has over-stretched his stomach until it has become sacculated, so that it can not empty itself; and he has hyperacidity in consequence. That habit of drinking at meals is so inveterate it is hard to break it; so he continues to indulge himself, to swallow three or four glasses of water and call for more. The proper way for him to do is to begin his meals with toasted rice flakes or granose flakes, or something of that sort, and eat them dry, and take no drink at meals. This may be a little hard at first, but if one will make the effort to train himself into line, and form correct habits, there is immensely greater enjoyment in the normal exercise of all our faculties than one can possibly find in their abnormal use. One who takes pains to chew his food soon comes to enjoy eating, and as Horace Fletcher says, he becomes the real epicure. The real epicure is the man who gets the most pleasure and the most satisfaction out of eating, and not the man who bolts his dinner or swallows his breakfast so fast he is likely to get choked on it.

READ, STUDY, INVESTIGATE

While you are here make a careful study of the Battle Creek Sanitarium System—its methods and principles. Read *Good Health* and other literature. *Good Health* is a journal devoted to the discussion of scientific principles and practice for personal health. And so far as I know, it is the only journal in the world that undertakes to present only scientific proven facts in relation to how to live properly. While you are here, attend the School of Health lectures. You will find the cooking class is interesting and profitable. A knowledge of the principles of the institution will convince you of their soundness. You want to take something home with you when you go; you should not be content to be patched up here and go back home and be as bad off in five or six weeks as you were before. You ought to make permanent improvement, to obtain increased efficiency and comfort in living. You should add years to your life as a result of your visit here, and there is no reason why you should not. A New York gentleman, the proprietor of a great magazine, said at Chautauqua last year, before an audience of several thousand people, that he had spent six weeks here at this institution, and he was certain it would add twenty-five years to his life. He said it had

MADE A NEW MAN OF HIM.

I met him in New York when I was coming through on my way home from Porto Rico a few weeks ago, and he said, "Just look at me; I am certain I never worked so hard before in my life as I am working now, and I enjoy it, and I am in the finest kind of physical condition;" and he owes it to the fact that he is living right up to the Battle Creek Sanitarium principles so far as he possibly can.

If we could get sick people really interested in getting well, so that they would go about it in a business-like, earnest way, we should see such prodigious results here at Battle Creek that the whole world would be coming here; but we can not get people interested. A man comes here and says, "Doc-

tor, how long do you think it will take to get me on my feet?" That man is in a very serious situation, perhaps his arteries are hardened, and we say to him, "Well, I think you ought to stay six or eight weeks with us, at least, to get a good start." "Oh, what will my business do? Why, I promised to be back to my bank in two weeks." He has to be back at his desk to go right on with that same killing grind that has brought him to where he is. He does not appreciate health. Why, my friends, the Sanitarium is a storehouse of health, and you can help yourself; but the thing is so easy, so open and free that people think it is not worth while. Here are great stores of health that you can appropriate and carry off with you if you only will. We are glad to help you to it, to serve it to you. But you must learn to appropriate it.



THE SANITARIUM WELL HOUSE

CAUSE AND CURE OF COLDS

(Continued from page one)

the circulation and of cold when he otherwise would not be.

BAD HABITS A CAUSE

In other words, one feels cold and takes cold because of a state of low resistance, rather than because of exposure to a little cold air. It is not the low temperature that gives the cold so much as this state of low resistance. Here are half a dozen people all exposed to the same conditions. They do not all take cold. One out of five or six perhaps will take cold and the rest will not be affected, because one was in a state in which his blood was saturated with poisons from some cause, perhaps from smoking, from eating too much, or from a beefsteak dinner. A young man died recently because he ate too much turkey for Thanksgiving, and he caught such a cold that he never recovered from it. He

was dead and buried in less than a week. It was the Thanksgiving turkey that killed him, rather than the cold air to which he was exposed. So a cold is really an accident, one might say, that comes upon a person because of the state of low resistance.

A state of lowered resistance may result from quite a number of things. It may be loss of sleep, for example; it may be physical exhaustion, or it may be mental depression. It is more likely to be a rotten state of the intestines, an accumulation of decomposing food remnants—in other words, intestinal auto-intoxication.

HOW SHOULD A COLD BE TREATED?

That depends entirely on the cause. If one has taken cold because his bowels are in a miserable state, clogged, loaded with putrescent material, then the first thing in the world to do

is to get rid of it. If one takes cold because he has been exhausted, he needs rest, and above all things he must endeavor to wash out the waste matters from his body, because in a state of cold there is always an accumulation of waste material, and he must drink an abundance of water. Half a glassful of water every hour is a very good prescription for a cold.

Careful attention must also be given to the diet. Fruit and fruit juices with some easily digested cereal, as rice flakes or rice biscuits, should constitute the dietary for a day or two. All high protein-containing foods, as meat, eggs, milk, beans and peas, should be avoided. If one will go out of doors and stay there, no matter what the weather is, he can get over a cold more

quickly in that way than in any other way. Cold air is a splendid remedy for a cold. I do not know of any better prescription for a cold than to stay out of doors in the daytime and sleep out of doors at night. At least sleep with your head out of the window.

The best way to prevent taking cold is to raise the body resistance so high that you can not take cold. When one is in the habit of taking cold frequently, it is because he has low resistance and he is susceptible to these colds. He is susceptible to other things as well. If he is likely to take cold very easily, he is likely to take consumption easily; he is likely to have pneumonia easily; or to have any other malady he comes across, unless he has been vaccinated against it or has had it before, so that he has become immune. The last thing of all, if you have taken cold, is to take a hot bath. Hot baths are the worst things of all for a cold, because they

(Continued on page four)

The Battle Creek Idea

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VOL. III MAY 27, 1910 No. 25

THE GLORY OF HUMAN PERFECTION

No more grand and noble sight ever presents itself to our eyes than that of a perfectly formed and preserved specimen of the human being. Man is God's masterpiece. A man standing erect in the glow of health, in the possession of all his faculties, having the consciousness of his powers, possessed of a sound moral sense, and governed by an enlightened conscience, is truly an object worthy of the most profound admiration. A sense of how great is the honor conferred upon such a creature is conveyed to us in the statement concerning his creation that he was formed and made in the image and after the likeness of his Creator.

But the ideal man is seldom met with now, on account of the numerous faults and blemishes that have developed in human life to mar the perfect image. One very effectual source of our failure to come up to the original standard is that the high ideal of human attainment is not kept before us. We are satisfied to be only what circumstances and environments make of us. We adopt prevailing customs and fashions, and drift with the crowd down the grade of human degeneracy rather than take ourselves in hand and set our faces toward higher ground.

Some of us awaken to this fact late in life after the die has been cast and irretrievable errors have been allowed to place a handicap upon real satisfactory progress. But it is never too late to mend, and though the day of redemption be short, it is too precious to be permitted to go past unimproved.

The perfection of human life embraces all that pertains to the individual as a physical, mental and moral being. We train and breed animals in physical ways, and to a limited extent, perhaps, mentally; but the man must be trained and educated in all things of which his versatile nature is cognizant. He must yield strict obedience to all the principles and laws which guard and promote his welfare. He must have a correct moral sense and give heed to its suggestions so that it may be preserved; he must give to his mental powers full scope along those lines of

thought and investigation that make for improvement; and in his physical life he must be careful and discriminating. He must realize continually that he is in a race, and in a battle at the same time, and that he needs all his physical resources kept at their best.

We sometimes see a specimen of mankind that impresses us as a model of bodily development, and our admiration is excited, but that admiration suffers a serious discount when upon acquaintance we discover that he is deficient in good sense, is a mere animal, has no education and no character. We look upon him as a monstrosity and not as a man.

And our pity is often awakened when we witness a mental genius wrecked by bad bodily habits, or incapacitated by some physical ailment. Our ideal is met only when we see the man fully developed,—a sound mind in a sound body; a well-developed intellect, a strong and vigorous spirit in an active, healthy body.

Good health is not simply a commodity, a handy thing to have; it is a vital asset in life, an essential condition to the best results in life; it is worth while to cultivate and care for it conscientiously and intelligently.

THE WORLD MOVES

THE world movement toward better methods in the treatment of disease which began in Germany a hundred years ago in a little mountain village near the Russian border is making rapid progress in these later years. The Battle Creek Sanitarium has long been the headquarters of the movement in this country, and perhaps the leading representative of the physiologic method in the world. Within the last twenty years the methods employed here have been steadily growing in favor with medical men as well as the general public and have been finding their way into State hospitals and asylums as well as sanitariums in all parts of the country.

From recent reports it appears that the city of Detroit is now to have one of the best examples of an up-to-date hospital in which the modern method of treating disease, many of which were originated at the Battle Creek Sanitarium, will be installed and used in a thoroughly complete and efficient way. We quote as follows from the *Detroit News* of April 26, 1910:

Many ideas that are considered highly valuable and which will in all likelihood be embodied in the new Harper General Hospital were brought back to Detroit when Drs. William F. Metcalf and Homer E. Safford arrived here this morning after several weeks in Europe, during which a score of cities and fifty hospitals were visited.

Two features used largely in German hos-

pitals will be introduced here. One is physical therapeutics, and the other is "the outdoor system." Physical therapeutics is the treatment of disease through mechanical appliances, a system which minimizes the necessity of drugs and tends directly toward modern teachings of medicine.

Its apparatus consists of different kinds of baths, electric baths, sand baths, steam baths, the application of certain kinds of lights, the use of apparatus indoors which gives the patient the same effects as riding a horse or a camel, rowing a boat, lifting of weights and so forth.

The outdoor treatment insists on big grounds and plenty of air about the hospital buildings as the first step. Then landscape gardening and parking come in as a means of attracting the patients out of doors. Arrangements are made for large porches, verandas and park ways, into which the patients are taken at every opportunity.

Of the several new appliances referred to above, several were invented at this institution, especially the electric light bath, which has come into general use in German hospitals and is now coming back to this country from a foreign land.

The old way of depending on drugs for the cure of disease is rapidly falling into discredit. The common people as well as scientists are coming to understand that the cure of disease depends upon the natural forces of the body; that the chief business of the doctor is to seek out causes and to supply conditions which will aid the body in its work. Diet, baths, light, heat, electricity, the great forces of nature,—these are the real curative agencies which help the body in its struggles to restore and to maintain the conditions requisite for health.

CAUSE AND CURE OF COLDS

(Continued from page three)

lessen your resistance, decrease your resistance still more.

CAUTIONS

If you do take a hot bath, two things are very important. Be thoroughly cooled off afterward by a plunge in cold water in the swimming pool, or by a cold wet sheet rub, or a cold shower bath, and then a thorough rubbing with oil afterward. A thorough oil rubbing is very important to avoid evaporation from the skin and consequent chilling on exposure.

After you have taken your bath, the whole surface of your body is moist. There is a little moisture left after you have had a bath

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and are thoroughly dry, and it takes a long time to get out of the skin all of the moisture that is put into it in the bath. Water has soaked into the skin. You can scarcely dry the skin any more rapidly than you can dry a garment.

There is moisture in the skin that must be dried out. The heat of the body, of course, helps to evaporate it, so if you have had a bath and have been dried thoroughly there is still some moisture there, and when you come out of a bath and are walking through the air it makes a draft. The remedy is to be thoroughly cooled off before you leave the bath-room. Have your skin thoroughly dried. Fan and rub yourself at the same time, rise up on your heels and toes and jump around in a lively fashion, and if you continue this until the skin is thoroughly dry, there will be no danger of your taking cold. After all this, you are nowhere going to get as great an exposure as the one you have had in the bath-room. The greatest enemy you can possibly meet has been met and mastered. You have come out victorious and you need not be afraid of any drafts. This procedure will harden the skin and dry it so perfectly that you can not take cold.

THE PHENOMENON OF SLUMBER

(Continued from page one)

the nervous system. The nervous system is made up of cells, and it has been estimated that there are at least eight thousand millions of these cells in the nervous system of a fully developed man. These nerve cells are microscopical,

THEY ARE LITTLE LIVING CREATURES, they have certain work to do in the body, and when they become diseased we suffer in consequence. These nerve cells may be divided into certain groups with reference to their functions. Some of them reach out and connect us with the outside world; they convey impulses from the outside to the spinal cord and to the brain. This group of nerve cells receive impressions of various kinds; they receive impressions of light through the optic nerve, and those of sound, through the auditory nerve, and impressions of taste and smell through the nerves of the mouth and nose. In the skin we have a large number of nerves which recognize touch, and heat, and cold. This group of nerve cells is the medium of communication between ourselves and the outside world.

In order for these nerve cells to be stimulated, some impression must be made upon their tip ends, the finger end, as it were, of these nerve cells. The nerve cell is very irregular usually; it has a body, and, extending out from it, there are quite a large number of processes, or branches, so that a nerve cell is really not a very symmetrical, handsome figure as seen under a microscope, and yet it is an exceedingly interesting thing to study. The body of the cell is in the spinal cord or in the brain; it is never out in the nerve trunk in the arm or limb. But the branch, or fiber, extends out along the nerve trunk, and may be two or three feet in length. When the fiber gets to the skin, it breaks up into a large number of branches like the branches of a tree, and these little endings penetrate in between the cells of the skin, and they are so numerous and so distributed that the point of a needle piercing the skin at any place would touch the end of one or more of these fibers.

WE DO NOT LIVE ISOLATED

and separated from the rest of the world physically or in any other way. There is a definite relation between our bodies and the forces in nature and about us, and these forces play upon our nerve endings, and produce impressions upon the brain. These forces impinge and set in motion nerve currents that travel to the spinal cord and finally up to the brain, so that we are stimulated by mechanical irritation, by changes in the temperature, by heat, and by cold, and by light and sound, and electrical changes. Our nerves are stimulated by all these different forces, and every sort of stimulus that we have comes to us by our nerve endings coming in contact with some form of energy.

We not only receive a stimulus in the form of a mechanical touch, but we can stimulate the end of a nerve with a ray of light; another nerve ending is touched by a wave of sound. The nerve in our tongue is impressed by the taste of the food we eat; and we stimulate some of the nerves in our skin by the thermal effect of cold or heat. So, I say, that every form of nerve stimulus is some form of contact.

WE CAN NOT THINK OR TALK

without some form of energy. We can not see with the nerve endings in our skin, because these nerve endings are not arranged so that they can recognize light as such. Of course, the rays of light playing upon our skin stimulate the skin and the nerves in a way, but we do not receive that impression through our skin by which we recognize it as light, so we have a special nerve properly arranged to receive rays of light as light, and that arrangement is in the optic nerve of the eye. We have a nerve modified in such a way that it will receive a sound wave, a wave of air impinging upon the nerve of the ear and produces sound. So the nerve endings in different parts of the body are modified and adapted to the reception of a particular kind of energy.

This fact is one that we do not always appreciate. We are dependent upon these forces outside of the body for our very existence, just as much as we are for food. Perhaps we could live a little longer with-

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The Battle Creek Idea (Weekly)	\$1.00 per year
Good Health (Monthly)	1.50 " "
The Medical Missionary (Monthly)	.50 " "

These papers will be combined at the following prices:

Battle Creek Idea and Good Health	\$1.85 per year
Battle Creek Idea and Medical Missionary	1.20 " "
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out this nerve stimulation than without food, but we can not live very long unless there is something acting upon our bodies to stimulate the machinery of the body. We make use of this principle in the treatment of disease. For instance, when we give a man a cold bath, the cold water strikes the skin and stimulates the nerve fibers through the skin, and there are millions of nerve impulses that go to the spinal cord and up to the brain. These impulses reach the nerve center having control of the heart, or another center hav-

though I think the value of drugs is greatly overestimated. The human family is so constituted that they get into sort of a rut, and we do certain things simply because they come down to us from centuries back in human history. This is illustrated in the Oriental countries where certain religions are handed down century after century without any question or investigation as to whether they are correct or not. So we are all prone to that sort of thing, and here in our own country we have been educated to look to

bitter drugs, bad-tasting medicine, for some remedy to heal our sicknesses.

We have studied briefly one class of nerve cells that receive impulses. There is another class that sends impulses out; they pass out from the brain to the spinal cord and to the muscles, or the glands, or to some tissue of the body. Between these two we have another very large group that we call central cells, because they are placed in between these two, and this group of central nerve cells is very numerous, so the nerve tracks or the nerve pathways from the brain in man are very numerous and sometimes very complicated. And it is that one thing that distinguishes the nervous system of man from that of other animals. Low down the scale of the animal kingdom we find only one kind of nerve cell, and that is the kind that receives impressions from the outside. When we get up a little higher in the invertebrates and the lower vertebrates, we find two kinds of nerve cells. When we reach the human being, we find three kinds.

REASON FOR SLEEP NOT UNDERSTOOD

I am telling you considerable about the nervous system, so that you will better understand what I have to say about sleep. Sleep has to do primarily with the nervous system. First of all, the causes of sleep have never been clearly ascertained. Philosophers have studied, physiologists have experimented, others have theorized, but no one can give a positive answer to the question as to why we lie down and go to sleep. However, there are certain things I will call preliminaries to sleep.

The first great cause of sleep is a tiring of what is called the vasomotor center in the brain that has control of the blood-vessels. When that center is acting properly, it sends out nerve impulses all over the body to the



A CLASS IN DOMESTIC SCIENCE

ing control of the respiratory function, or still another center having control of the stomach, and through the stimulation these centers send out more vigorous impulses which pass over an entirely different nerve to the stomach or to some other organ interested, and change the action of that organ. Now, this action we call a reflex. In sending an impulse in through the skin and along one nerve track and back over another, it is reflected or changed from the skin to the brain, and back down to the heart or some other part of the body.

IT IS NOT THE WATER

that is applied to the skin that does the good, it is the heat and the cold that is in the water; and these do good by acting as a stimulant to the nerves and thus the functions of the body are stimulated by this impression that is made by the water on the skin.

Very often I have had patients say, "I can not see how water applied on the outside of my body is going to do any good to my liver, which is on the inside." It is not very apparent, of course, to the one who is not acquainted with these methods; but there is more scientific evidence back of it than there is for the use of many of the drugs that we have in use. And in saying that, I do not wish to disparage the proper value of drugs,

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cells in the arteries causing the arteries to contract, and the tone of the blood-vessels is maintained. If the vasomotor center relaxes, loses its grip, upon these blood-vessels, then they dilate and there is more blood passed into them, and the blood recedes from the brain and sleep follows.

Second, while we are working at mental work or physical work, there is produced in our body all the time certain chemical substances which are somewhat toxic. When these poisons are not eliminated, some of them have an action upon the nervous tissue and lessen its irritability, and they accumulate in the body and produce sleep.

Another cause of sleep is the lessening of the normal irritability of the nervous system, or its capability of responding to stimuli. After a night's rest, the irritability of the nervous system is greater and we respond to stimulation much better in the morning than at night, and the reason is because our nerves are more sensitive; they react in a more positive and decided way than at night.

Another cause of sleep is the reduction to a minimum of the various stimuli, such as sound, light, and irritation on the skin, which act during our waking hours. We choose the night rather than the day for sleep because these stimuli are reduced.

These conditions represent the different causes or preliminaries to sleep. There are

SOME IMPORTANT CHANGES

that occur in the body during sleep, and we may notice these. First, is the loss of consciousness. Second, the sensations are lost when a man is asleep; he does not feel anything, or perceive any of the sensations of sight, hearing, taste, or smell. And, further, there is a loss of motion. The muscular system is quite inactive, though perhaps not completely so. There are some important changes in the circulation. Sleep causes the recession of blood from the brain. We can prove this by experiments. The circulation is slower, and during sleep the congested parts are relieved and the blood is again evenly distributed in the body.

The effect of sleep on the nerve cells is to restore and repair them. At night they will be seen under the microscope in irregular shrunken forms, but in the morning after natural sleep they are filled out and renewed. Sometimes people take drugs to induce sleep. A man can easily be reduced to unconsciousness by the use of drugs, but this is not necessarily sleep. Natural sleep is a condition during which the nerve cell is built up, and any sleep which does not build up the cell is of no value. The objection to the use of drugs is that they hinder this building-up process. They paralyze the nerve irritability of which I have been speaking, and in doing that they hinder the normal process that should go on in the cell. Sleep is a natural function, and any artificial substitute is not sleep.

ARRIVALS

THE list of arrivals at the Battle Creek Sanitarium for the week ending May 22 is as follows: C. C. Van Cusen, Ind.; Francis Sypinski, Pa.; R. T. Pettibone and James W.

Allen, Pa.; Ed. H. Strickland and wife, New York City; James Kuntz, Jr., Pa.; Mrs. W. F. Thompson, Mich.; Frank Valenmis and wife, Mo.; C. B. Huggins, Jr., Tenn.; Frieda Wolf, Chicago; Iva G. Carrillo, Kan.; Mr. and Mrs. Dave Davis, La.; H. D. Phelps, La.; Jas. E. Heidelberg and wife, Miss.; Chas. E. Crowther, Neb.; H. H. Albert, Ind.; E. H. Wilkerson, Ga.; Emma E. Vergis, Cincinnati; N. H. Cartinhour, Chicago; Mrs. David O. Hollwok, Pittsburg; J. G. Bush, Jr., and wife, Ala.; Mrs. Alice Miller, Ill.; E. C. Felie, Mexico; Geo. Royal and wife, Ill.; Mrs. G. R. Satterlee, New York City; Mrs. F. B. Wilkinson and Grace A. Wilkinson, Ind.; F. S. Dodd, Ill.; J. T. Landry, La.; W. M. Roseman, A. E. Roseman and M. A. Roseman, Cleveland; C. E. Wolfenden, Wis.; Geo. S. Dwinell, Boston; Mrs. Louis Liffing, Toledo; Mrs. G. P. Swogger, Pa.; Wm. F. Thompson and H. B. Parrish, Mich.; Mrs. Samuel McCall, Ky.; Mrs. A. Gerlach, Ind.; Perry Allen, Mich.; D. E. Blake and T. C. Daly, Chicago; L. P. Connors, Pittsburg; Bertha V. Hansen, Wis.; Miss Anna Calhoun, La.; E. E. Nichols, Calif.; J. P. Frank and P. L. Armstutz, Ind.; W. B. Holden, M. D., Ore.; Mrs. C. G. Westcott, Fla.; Frank Bechtel, Ind.; Clem Naldrett, Mich.; Mrs. Albert H. Rankin, Ill.; Harvie DuVal, N. Mex.; Mrs. Clara S. Fields, Mo.; Miss S. B. Harrison, Fla.; R. H. Hicks and wife, Tex.; E. M. Edgar, Chicago; Mrs. Wm. R. Landon and Mrs. Geo. G. Taylor, Ont.; Mr. and Mrs. Wm. E. Dennis, Mich.; R. M. O'Reitter, Washington, D. C.; F. Wolf, City; Mr. and Mrs. E. R. Pirtle, Ariz.; L. A. Miller, Chicago; R. A. Alesbirey, W. Va.; Mr. and Mrs. R. M. Knox, Ia.; P. M. Etchells, Mich.; H. B. Garvin,

Ia.; Mrs. F. A. McCollum and Mrs. E. G. Eberhart, Ind.; Frances E. Bolton, Kalamazoo; Henry G. Koch, Buffalo; Robb Carter, M. D., W. Va.; B. F. Burtless and Samuel Osborn, Mich.; Geo. W. Dodge, Ia.; Mrs. Minnie Tinhotte, La.; Mr. and Mrs. H. F. Waltring, Ky.; M. Malkin, Chicago; Mrs. C. B. Western, Mich.; Mabel Long, Mich.; D. E. Blake, Chicago; W. W. Jeffries and Will J. Jeffries, Ind.; Clara Connor, O.; Mrs. Mark B. Curdy and two children, Mich.; J. M. Barker, Ind.; W. A. Stockman and wife, Ind.; F. J. Norton, Chicago; Mrs. E. K. Springer and Doris, Chicago; J. B. Walker, Pittsburg; Miss Sue Malone, Ala.; W. D. Haring, Ind.; Walter M. Kohn, New York City; C. O. Scott and son, Mich.; Mrs. J. R. Anderson, Ind.; Miss Katherin O'Dair, Ia.; Mrs. E. D. Taylor, Mich.; Edw. A. Geen, Chicago; Bruce S. Biddle, Ill.; Mary V. Dryden, M. D., Mass.

News and Personals

Dr. W. B. Holden, of Portland, Oregon, was a guest of the Sanitarium during the past week.

Mrs. J. C. Richardson, a missionary from Burma, serving under the Baptist Board, is taking much-needed rest and treatment at the Sanitarium.

Dr. Mabel Howe-Otis, formerly a member of the medical staff of this institution, more recently of Moline, Ill., is filling the place of her sister-in-law, Dr. Maude A. Vollmer, as dietitian in the food factory, while the latter is visiting friends.

SUNDAY EXCURSION

— VIA —

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**The Battle Creek Sanitarium School
of Health and Household Economics**

**BATTLE CREEK
MICHIGAN**

Dr. Morse, of the Sanitarium staff, recently sailed for Europe, where he expects to spend a few months in medical study. He writes that he is having a very pleasant time and enjoying profitable opportunities.

Mr. and Mrs. D. H. Pinckney, formerly students and helpers in the Sanitarium family, who have been engaged in medical missionary work in various cities, have again united with this institution. Mrs. Pinckney is acting as assistant matron in East Hall.

The Sanitarium Society of Christian Endeavor, recently organized, is manifesting vigorous signs of life. The membership has now reached one hundred and thirty. The meetings are characterized with much interest and the good influence of the work is already felt.

On Monday evening, May 16, the helpers employed in East Hall dining department tendered a complimentary banquet to Miss R. J. Lambert, who has had charge of that department for several months. Miss Lambert is spending a short time in experimental cookery and then expects to take a well-earned vacation in the East.

The last Sabbath services consisted of a symposium on the subject of the Cause, Cure, and Prevention of Tuberculosis; three of the Sanitarium physicians, Doctors Mortensen, Eggleston, and Martin, each giving a brief address on these respective topics. Much practical information was imparted and the meeting proved to be one of unusual interest and value.

Prof. R. E. Hieronymus, president of Eureka College, Illinois, accompanied by his wife, stopped for a short time at the Sanitarium last week. They were on their way to the great Missionary Conference which assembles in Edinburgh in June. After that meeting they will conduct a party of tourists through Europe and about the Mediterranean. Their son remains at the Sanitarium during their absence.

Returning from the funeral of their brother, the late Justice Brewer, Misses E. H. Brewer and A. Brewer stopped at the Sanitarium for a brief rest, and to visit two of our medical students who were pupils of the former lady in St. Paul's College, Tarsus, Asiatic Turkey. Miss Brewer is professor of mathematics and astronomy in that institution. These ladies expressed much pleasure in their observations while with us.

The Life Boat Mission, for many years located on South State street in Chicago, carried on under the auspices of the Battle Creek Sanitarium, has been transferred to 35th Place, near Halsted street, in the Stock-yards District, and will be carried on in connection with the dispensary of the American Medical Missionary College, the superintendent, E. B. VanDorn, still remaining in charge. Mr. VanDorn informs us that the work opens up very encouragingly in the new location.

The Michigan Societies of Christian Endeavor will hold their annual convention in Battle Creek this year from June 30 to July 3. It is expected that the convention will

open at the Sanitarium with a banquet for the delegates, and that the first meeting will be held in the evening in the Sanitarium chapel. A very interesting and important meeting is anticipated.

Dr. Mary V. Dryden, who has been associated with the work of the Sanitarium for a number of years, but for the last two years has been away on leave of absence, has returned and resumed her work.

The Battle Creek Amateur Musical Club, under the direction of Prof. Edwin Barnes, favored the Sanitarium with one of their excellent concerts on the evening of May 24, the gymnasium being appropriately arranged for that purpose. The following program was presented:

Cantata for Ladies' Voices with	
Quartet	Clough-Leiter
Annie Laurie	Dudley Buck
MEN'S CHORUS	
Lullabye	Chadwick
LADIES' CHORUS	
No Torments Now	Massenet
MRS. C. S. GORSLINE	
The Lamp in the West	Parker
MEN'S CHORUS	
The Dream	Rubenstein
LADIES' CHORUS	
Hush	Weidlinger
MEN'S CHORUS	
Hail, Bright Abode	Wagner
FULL CHORUS AND ORCHESTRA	

A unique service was held in the East Hall parlor on Sunday afternoon which was styled "Voices from Many Lands." Missionaries and other representatives from various parts of the world appeared in costume and gave brief addresses from the standpoint of the natives of the countries which they represented. Mr. Alpuchi repeated the Lord's prayer in Mexican-Spanish; Mrs. Herriek represented a Christian Tamil woman. Mrs. Lawrence represented child life in Persia. Miss Daisy Stanford acted the part of the Hindu mother-in-law, presenting two little Hindu wives and illustrating in a practical way how they would be treated by the Christian and by the non-Christian mother-in-law in India. Miss Gerow represented the Brahmin widow. Mrs. Silliman acted the part of a Telugu mother with her child. The character of the North India Bible reader was enacted by Miss Hardie; and the Chinese official lady was illustrated by Mrs. Shimer. Mr. Adroumie, of Asia Minor, represented the Christian student of that country; and the Japanese lady was represented by Miss Colby. The veiled Mohammedan woman of North India was represented in the person of Mrs. Chew, and was introduced by Mrs. Z. F. Griffin. Miss Parmelee was dressed to represent the Armenian Christian woman and with her mother sang a hymn in the language of that country. Miss Zahn and Messrs. Stephenson and Weneke contributed to the singing. At the close all joined in singing "Blest be the Tie." The parts were all beautifully represented in speech, action, and costume. The scene was a very impressive one and all reported an exceedingly interesting occasion.



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THE BATTLE CREEK IDEA

Vol. III No. 26

BATTLE CREEK, MICH., JUNE 3, 1910

Price 2 Cents

ARTERIOSCLEROSIS DESCRIBED

In a Lecture by Dr. W. H. Riley, Delivered in the Sanitarium Parlor—
Causes and Remedies Indicated

ARTERIOSCLEROSIS is a hardening of the arteries, and is caused by a number of differ-

An Interesting Bit of History

The Origin and Growth of the Battle Creek Sanitarium Plant and Principles

THE enterprise which originated the now world-wide famous Battle Creek Sanitarium

HOW TO LIVE SANITARIUMWISE

Dr. J. H. Kellogg Tells His Patients How to Live for Health While Away from the Sanitarium

THE Sanitarium is a sort of a sanitary haven where one escapes for a while from



SOUTH HALF OF MAIN BUILDING

ent things. We sometimes see arteriosclerosis in middle-aged people, who have inherited poor tubing, we may say, from their father or mother, or both. Arteriosclerosis is a disease that is inherited quite as much, I think, as any other disease. At any rate, heredity has very much to do with it in many cases. Another cause is hard work.

(Continued on page five)

was launched under apparently humble conditions nearly forty-five years ago. It may be safely concluded that its founders had but little conception of what their undertaking involved. There was no doubt a providential purpose in the movement that was not clearly apprehended by even the most enthusiastic promoter.

The movement had in it a protest against
(Continued on page three)

the temptations of the wicked world, but when one returns into the world of temptation, it is sometimes pretty hard to live right. However, in the matter of diet, by taking a little forethought, one can make provision for himself so he can live healthfully almost anywhere on the face of the earth. I have traveled extensively, have been in Europe, Asia, and Africa, as well as America, and I have never found any difficulty in get-

ting wholesome food and living hygienically. I have been getting along now for over FORTY-FOUR YEARS WITHOUT EATING FLESH. When I am about to take a trip I am thoughtful of the fact if I am going to be placed under circumstances where I can not get readily at hand the things that I consider wholesome, so I take with me something that is wholesome. With a small supply of nourishing foods, such as might be difficult to obtain, with fruits and nuts which are always available, one can make a good meal and have all the elements of nutrition, everything one needs.

When I got to Cairo a few years ago, I had nothing with me, and I had to live on what I could get; and I found everything I needed. There were figs and dates, which furnished all the carbohydrates needed, and there were pistachio nuts, Turkish hazel nuts, and Jordan almonds, and plenty of nuts of various sorts. Figs, dates, and raisins are three fruits which furnish carbohydrates in abundance, because they are very sweet; then with various nuts, and juicy fruits, one has all the real essentials of living. But now one can always find some very wholesome things besides. There is bread which can always be found, and it is good bread if you have it toasted. The poorest bread will be all right if it is thoroughly toasted. Then one can always find fresh vegetables of some sort; and if you can do no better, canned fruits can be found everywhere. The most difficult thing to find is a wholesome fat. And about the best resource is olive oil. It is a great deal safer in a hot climate than butter.

BUTTER CONTAINS SO MANY GERMS

of all kinds. There have been found more than fifty different kinds of germs in milk, and in the butter you have the concentrated evils of those germs because when the cream rises it carries the germs up with it. There are very few germs in skimmed milk. In the process of churning the germs are again accumulated in the fat, so there are almost no germs in the buttermilk. If you trace butter through all the processes of manufacture and the various things that come in contact with it, you will see that when it finally comes upon the table it is a great accumulation of bacteria and microbes of various sorts.

There are other things that abound with germs.

ORDINARY CHEESE

is full of them. It may be said that cheese is like a silver mine in Colorado—it has millions in it. There are other things in cheese besides germs, by the way. Perhaps some of you remember the story of Charles Lamb. His sister sent him down one night to the cheesemonger's to get some cheese, for she could not go to bed without having some roasted cheese for supper. He hobbled down the streets of London, for he was lame, and ordered some cheese; and as the cheesemonger was cutting it off, Mr. Lamb observed that it was a rather lively variety of cheese. The grocer said, "Mr. Lamb, shall I send it home?" "Oh, no," said Mr. Lamb, "lend me a string and I will lead it home." Well, this sort of stuff we better keep out

of our stomachs. Anybody who has once studied germs and gotten into the real mysteries of bacteriology will be afraid of these things. It not infrequently happens that a bacteriologist while simply working about germs, gets infected and dies in consequence. So it is well to be careful.

ORDINARY RAISED BREAD

is not the cleanest thing, by any means. Germs are finer than the very finest particles of flour, so the bolt does not take the germs out. The bolt will take out the bran and the coarse lumps of dirt, but it will not take out the bacteria; they go right along into the flour, and they make a great deal of trouble. The housekeeper who undertakes to make her own bread knows something about the trouble the germs produce, but she does not always know it is the germs which make the trouble. She measures out her flour, measures the water, has the dough exactly right, and puts in it a certain amount of yeast, and she gets a splendid batch of bread, and is very proud of her success; but the next time she does exactly the same thing, and her bread is not good, and she says her luck is bad. She has done her part all right, but she got hold of flour that had some mischievous germs in it. Those germs worked in the bread along with the yeast, and they spoiled the bread. The reason why toast and zwieback are better than raised bread is that the second baking destroys the germs. I am continually saying to people, "Do not eat raised bread." I never touch it myself except under circumstances of necessity. If I do eat it, I ask the waiter to put it into the oven or over the toaster, and to toast it very thoroughly until it is dry and brown all through, so that the germs will be killed. In soft bread, there is an abundance of these living germs, and that is one reason why raised bread disagrees with so many people. It is a very common cause of indigestion and dyspepsia.

REGULAR HABITS

One thing you must do upon going home is to adopt regular habits. Irregular habits, especially irregular habits in eating, unquestionably are productive of disease to a very high degree. There are certain kinds of irregularity that are not so bad as other kinds, but they are all bad. To live in a wholesome way as regards eating, we must eat regularly, twice or three times a day, just as we arrange for our meals. If one eats three times a day, he should eat one hearty meal and two light meals. A light meal should be eaten for breakfast, and a light meal for supper, and a hearty meal in the middle of the day. Never eat a hearty meal at night; that is, just before going to bed. That is a most objectionable thing to do.

The reason is this: It is possible for food to digest while you are asleep, but you can not sleep well while digestion is going on, because the brain is kept stirred up continually. There is the great abdominal brain, called the solar plexus; and while digestion is going on in the stomach, this brain is kept wide awake. It is closely connected with the cranial brain, and with the heart, and the heart and the brain are excited; and every one knows that

upon retiring soon after eating a hearty meal, he is likely to have dreams, does not sleep soundly, because his brain does not get entirely at rest. As a result of this imperfect sleep, one wakes up in the morning without being refreshed. I wonder how many people there are here who know anything about actual, dreamless sleep, the sleep of childhood, in which you awaken feeling completely renewed, and full of energy.

TO GET THOROUGHLY REFRESHED

one must have really sound sleep, because it is while we are asleep that our bodies are rested and repaired. Actual repair as well as growth takes place during sleep. That is why the child needs to sleep so much. The child needs to sleep nearly all the time day and night when it is very young, and an older child needs to sleep a great deal more than a grown person, because it is during sleep that growth takes place. Vegetation makes the greatest growth during the night. It is just as true of animals as of plants that growth and repair take place during sleep. Sick people get well while they are asleep. They do not get well when they are awake to any great extent. So it is important that sleep should be as sound as possible. So here at the Sanitarium, as well as after you go home, it is well to make provision for sound sleep by avoiding filling the stomach within an hour or two before going to bed with food that is hard to digest. One should not eat within three or four hours before retiring.

Another important fact in this relation is that food which is taken into the stomach just before one goes to sleep remains there too long a time. All sorts of activities help the stomach to empty itself. A very important thing is this: The diaphragm moves about eighteen times a minute when we are awake, and the stomach gets a little jog sixteen or eighteen times a minute, and that greatly facilitates the process of digestion. But when one is asleep, he does not breathe more than thirteen or fourteen times a minute, and the diaphragm moves but slightly and the stomach has very little assistance in this way; and the consequence is that the stomach is irritated, excessive acidity is produced, the stomach is over-excited and over-stimulated; and when one wakes up he does not have any appetite; the stomach is all tired out; it has not had a chance to rest, and a catarrhal condition is likely to arise, which often becomes extremely painful and very chronic and difficult to cure.

MEALS MUST BE REGULAR

Suppose a person misses his breakfast. You say, "Well, no great harm will come to him from that." That is true; the harm will not be very great, yet there will be some harm; because naturally the food enters the stomach in a rhythmic way, and leaves the body in a rhythmic way. The alimentary canal is about thirty feet long. When food enters, a little peristaltic wave is started, which passes clear down to the other end. Breakfast is taken, and after a few hours have passed, dinner is taken; and when a few hours more have passed, there comes the supper. Now the alimentary canal is occupied, and while food is entering at one end,

there must be an emptying out of the wastes from the other end of the alimentary canal; and when the next meal comes along the same thing will be true, and of each succeeding meal. So the natural rhythm of the intestine is that there should be a movement of the bowels after every meal. And there is no doubt about it in my mind that this natural rhythm of the intestine is the proper plan, because when food is introduced into the upper part of the alimentary canal, there is a movement all along the whole canal, and it is an artificial condition which leads to the retaining of the food substances in the colon for hours and hours after the process of digestion has been completed.

AS A RESULT OF THIS RETENTION

the food undergoes putrefaction and fermentation, and germs are cultivated, and they take root upon the walls of the intestine, colonize there and do mischiefs of various sorts as a result of this infection. Now, just stop to think of what it means to have a mass of fermenting, putrefying material in contact with the living flesh. It is of the utmost importance that the natural rhythm should be maintained. I have been studying this question very carefully for the last three years, and have been making observations upon adults and young children, and upon animals of various sorts, and I have become thoroughly convinced that the natural rhythm is a bowel movement after every meal. An eminent physiologist made this remark, and I think it is very correct, "Food is the natural stimulus for the bowel; food is the natural laxative. When food comes in contact with the stomach it stimulates the stomach movement, and this movement that starts in the stomach travels the whole length of the intestine." To go without a meal will interrupt the natural rhythm. Walking in the morning, and the morning cold bath are valuable means of stimulating this activity. Some people find that taking a glass of cold water before breakfast is a valuable means of stimulating the intestine. That starts the peristaltic activity in the intestine, and the stomach, even before breakfast is taken. Eating a couple oranges before breakfast is a very excellent plan, because it stimulates the intestine to contract.

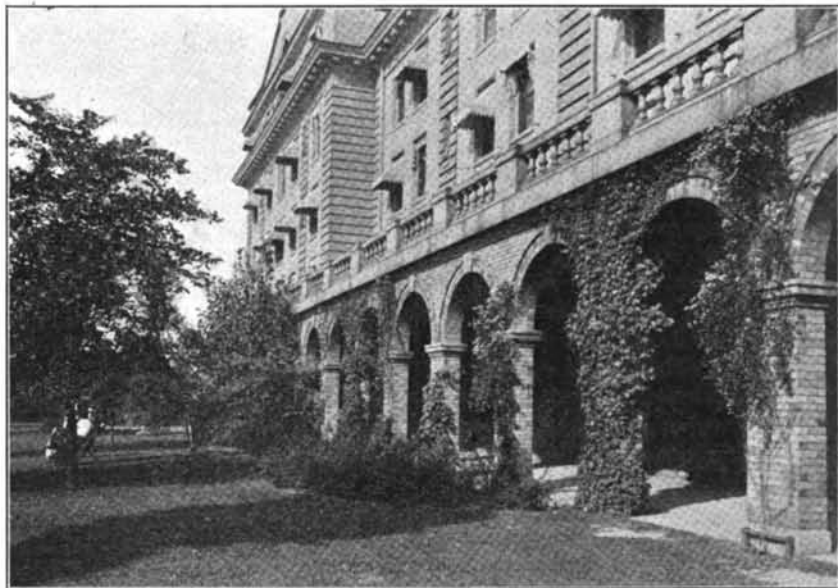
THESE ARE PRACTICAL MATTERS

that may be of some help to you when you go home. I think they are important. There is another error, however, with reference to the rhythm of meals, which is attended by far greater evils than omitting one; and that is the lapping of one meal over another. Breakfast was late this morning; we didn't get breakfast until ten o'clock; at twelve o'clock comes dinner time. So you eat your dinner while a part of the breakfast is still in the stomach. That is about the most insulating thing you can do to the stomach,—to take in food when there is already food there that is only partially digested. The thing to do under such circumstances, if you must eat something, is to eat a very light breakfast that will be digested in two hours.

Any kind of liquid food will pass out of the stomach in two hours, unless it be ice cream.

Now, another thing of exceeding importance at home is living outdoors. We are naturally outdoor animals. We haven't any right to shut ourselves up as we do. The sedentary life we live is so abnormal, so unnatural, it is a marvel that we live so long as we do.

Another thing: When you get up in the morning, have a bath of some kind. It may be a cold water bath or a cold air bath. The cold air bath is better for some people than the cold water bath. It is only necessary that the skin should have the stimulus of cold, and cold air is stimulating just as well as cold water. For many people, it is safer to have the cold air bath in the morning than to have the cold water bath, because with the cold water bath the slow evaporation that takes place afterward often induces chilliness.



NORTH OF THE MAIN ENTRANCE

Now, another thing that I think is important for the average civilized man is to know that exercise is necessary, that work is essential. When Adam was told that he must earn his bread by the sweat of his brow, it was not a curse that was pronounced upon him, but a blessing. The people who suffer are the people who do not sweat. Each one should do enough hard work every day so he will sweat.

When you get home, say to yourself, "Now, then, I am going to live up to all the principles I have learned. I am going to live naturally." That is the keystone of the whole thing—to live naturally. Find what is natural, and if you learned something here of what is natural, be sure that is the thing that is right.

We should so manage our diet and all our habits of life that we will be clean and sweet throughout; and when one is living in that condition he is getting just as near to the normal state of things as it is possible for him to get.

INTERESTING BIT OF HISTORY

(Continued from page one)

many of the customs of modern living, the elementary principles of reform in those customs, and in the treatment of disease. The simple life of natural habits and conditions was before the minds of those who acted in the establishment of the little water-cure institute from which the Battle Creek Sanitarium has grown.

At the outset the venture was met with the prevailing prejudices and was ridiculed by many in the community. And perhaps there is no great degree of blame to be attached to those who indulged in the laughter, for there was really little in the affair but the very crudest zeal of earnest but unscientific people who had laid hold of some great truths without the experience or knowl-

edge to enable them to represent them to the world in their proper light. After struggling along for a term of years with but little evidences of progress or success, a new era was brought in; though it may be stated that even in its crude form the old water-cure, administered as it was in an empirical way, without a knowledge of the true philosophy of the system, did result in effecting many cures, and some of them were remarkable for those days.

The new order of things, which was introduced in the centennial year of our country, was noted first for a changed attitude toward the medical profession at large. Heretofore there had been war; the profession refused to grant to the venture any recognition, and on the part of the young institution there was displayed a determination to fight it out at any cost. But the struggle was an uneven one, and would soon have resulted in the discomfiture and failure of the venture, and deservingly so, had not better

(Continued on page four)

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COMMENCEMENT SEASON

THIS is the time of the year when students are passing from bloom to fruitage, a time of gladness, and of anxious anticipation as to what the future may have in store. The Battle Creek Sanitarium has its full share of the experiences which are common to other educational centers. Three classes of students here are being launched upon the sea of human needs and activity.

First in order of time, comes a class of eight ladies who are finishing a course of Domestic Science and Household Economics. These students find a wide field awaiting their activities. They have received during their sojourn in this institution a broad view of the principles of true domestic life, and a deeper insight into the real needs of the numberless household circles from which young men and women go forth to bless or curse mankind. Amongst the great and crying needs of our country at the present time, none is more urgent than the demand for housekeepers and homemakers. With bright views of what constitutes true happiness and success in life, we believe that these students have become impressed with right ideas and imbued with an earnest spirit to do good work for humanity.

The next class to receive its diplomas is a class of forty-one nurses, all ladies, with one exception. The gentleman nurse has received a two-year training and the lady nurses have received a three-year course, during which they have explored realms of physiology, anatomy, medication and hygiene, under competent teachers; while at the same time laboring with their hands they have gained a practical experience in caring for the sick and administering the great natural remedies provided of God for the restoration and recovery of the sick. These nurses are possessed of Christian character and experience, and have received their training under distinctively Christian influences. The Bible has formed an essential part of their education here, and before they came to this school. They go out then as medical

missionaries, following in the footsteps of their Master, who "went about doing good," and there would seem to be no field in which one could trace more plainly the footprints of Jesus Christ than in that field of Christian activity where are found the sick and suffering ones of earth. The nurse's profession is a noble one, and the calling of the true Christian nurse is sanctified by the presence of and association with the great Healer himself.

The third class to be graduated is the product of the American Medical Missionary College, an institution devoted to the education and training of those who purpose to use medical practice as a means of making friends and leading that friendship to Jesus Christ, perhaps amongst the most needy fields in our crowded cities, or in distant lands where darkness prevails. These students have passed through four years of training and study, more exacting than that which is usually required. While pursuing their studies they have been brought into actual contact with practical medical work. In no respect has their didactic work been neglected or modified. The requirements have been very full, and these students have met them bravely and persistently, and are well entitled to the diplomas which mean so much to them, and which we are glad to say are recognized in all parts of the world.

We extend to all these students our most hearty congratulations, our best wishes for their future being that that Providence which has led them hitherto may guide them into the fields of utmost usefulness, where all their powers may be actively employed in the service of humanity for Christ's sake.

INTERESTING BIT OF HISTORY

(Continued from page three)

counsel's come in. It was determined to seek out untiringly all those agencies which contribute to good sound health and to the remedying of diseased conditions, and to assemble them in one grand system, thus constituting a great university of health.

The original idea was still adhered to so far as proposing a reform of the modes of living and the treatment of diseases, but the whole scheme was now to be brought around to a thoroughly true and practical scientific basis where it would inevitably win the respect and good will of medical men, and thus become a powerful auxiliary to the healing profession.

This was certainly no small undertaking. It involved the most painstaking and extensive study and research. It required the careful elimination of every feature that was at all unsound, and the adoption of every true principle of physiological culture and therapeutics. This had to be done without the approval of professional men, and in

spite of their doubts. There were but few to encourage such an undertaking, and recognition did not come to the struggling cause until it was compelled to come. But it came at last; the principles were tested and stood the test, the results more than bore out all that was claimed for the system; it outlived all the scorn and all the criticism friendly and unfriendly. It grew in favor, and as its good fruits began to appear in the remarkable recovery of invalids, many of whom had passed beyond the reach of ordinary medical means, the people at large began to take notice, physicians began to send their more difficult cases; scientific men of eminence came to investigate, until at the present time the undertaking of 1866, started in such a feeble and tentative way, exerts an influence that is felt around the world, and under the divine providence and blessing of God is doing a great work for suffering humanity.

The reproach attached to the practice of hydrotherapy fifty years ago is rolled back; and it stands out to-day in full recognition of the scientific world as one of the most effectual and rational remedial agencies in the world. Associated with the uses of water are electricity, light, exercise, mechanical and voluntary, rest, and a very important adjunct in dietetics.

As the methods and principles embraced in the Sanitarium system were being elaborated and established, and as the work expanded, new buildings and facilities for carrying on the work and receiving the people were required, so that the plant increased proportionately with the advance of knowledge and truth. At first a small farm-house was sufficient to accommodate the entire outfit. This was enlarged considerably, and in 1878 a brick building, four stories in height, was erected. Additions were made to this, and other buildings were added until a destructive fire in February of 1902 laid the two main buildings in ashes. While this was an undoubted calamity in hindering the work for a time and in imposing severe financial burdens upon the institution, it was also a blessing in opening the way for the erection of more safe, convenient and hygienic buildings, constructed on the most approved lines in every respect.

Along with the development of this work in other lines has been the building up of a system of education. This is undoubtedly the most important feature of the work carried on by the Battle Creek Sanitarium. The regular schools now operated in connection with the institution are: A thoroughgoing medical missionary college for the education of medical missionaries to carry the gospel of health and saving grace to the distant parts of the earth. Then there is the Training-School for Nurses, with a course of three years' instruction and experience, which has just graduated a class of over forty pupils; a Domestic Science School, and a School of Physical Culture. Besides the regular school work for the preparation of workers, efforts are continually made to enable all who come to the institution for treatment to become familiar with and intelligent upon the principles and methods here represented. This is done by lectures in popular terms, by suit-

able publications, and by classes and demonstrations held for the special benefit of those who are here temporarily. The objects of this work are to enable those who have recovered their health to preserve it, and also to make them effectual witnesses for these principles wherever they may go.

As has been always claimed and is now established firmly by legal authority, this institution is wholly carried on in the interests of humanity at large. It is purely and practically a benevolent and philanthropic enterprise, bringing no financial gains to any one beyond the meager salary that is necessary for their support. No dividends are declared. The proceeds are devoted to the up-building of the work, to the scientific investigations that are necessary to procure the best and most approved knowledge and facilities, to the treatment of the poor, and to the payment of debts incurred in erecting appropriate buildings and providing their equipment.

From the above sketch it is hoped the reader will gather correct ideas of the nature of the work that is being done by the Battle Creek Sanitarium. There is no desire to indulge a boastful spirit, nor is there any oc-

casional for such indulgence, if there were the spirit. The time had come for light and knowledge on these subjects to break forth, and the Battle Creek Sanitarium is humbly grateful for the privilege of acting as a medium for conferring such good upon the world.

ARTERIOSCLEROSIS DESCRIBED

(Continued from page one)

THE BUSINESS MAN

who works hard and works under high nervous tension—mental and physical strain,—if he is already predisposed to arteriosclerosis by heredity, is quite apt to develop this disease. And there are certain infectious diseases, sometimes typhoid fever, which result in the development of arteriosclerosis even in those that are quite young; and there are other sources of infection that cause it.

Alcohol will cause it. It is quite common in those who have used alcoholic liquors for a period of years. This is one of the most active causes in producing arteriosclerosis. Another cause is over-eating. And this is

not my opinion alone on this. Such men as Doctor Osler, formerly connected with Johns Hopkins University, now at Cambridge, England, particularly emphasize over-eating as an important factor in producing arteriosclerosis. No matter what kind of food it be, over-eating may produce this disease. Especially is eating an excessive amount of protein food conducive of this disorder. These nitrogenous or protein elements of food decomposing in the lower bowel produce poisons that are absorbed into the blood, and these poisons by irritating the blood-vessels cause arteriosclerosis; so when we find a man's arteries hard, we always limit the amount of protein food he takes into the body. One who has arteriosclerosis should eat largely of carbohydrates, such as well-prepared dextrinized cereal food. And green vegetables, like lettuce, asparagus, spinach, etc., and the fruits, are particularly good. Fats may be taken in moderation. In arteriosclerosis also one should not eat salt, or at most he should eat it very moderately. Excess of protein foods and salt should be especially avoided in this disease.

ARTERIOSCLEROSIS IS A VERY SERIOUS DISEASE, because it is quite common, and there are dependent upon it so many other different diseases, such as diseases of the kidneys, chronic Bright's disease, apoplexy, and diseases of the heart; hence it becomes really a very important condition. The medical profession in recent years has given a great deal of study to this subject. There are a number of different things to which attention should be given. First of all, one should take proper kinds of food, and should avoid tobacco. Tobacco is a bad thing in arteriosclerosis, as it always increases the blood-pressure.

It is a mistake to think that the blood-pressure is *always* increased in arteriosclerosis. And, on the other hand, we may have high blood-pressure and not have arteriosclerosis. So these two conditions are not synonymous by any means, and yet they are often interpreted that way. Take a man's blood-pressure, then allow him to smoke two cigars, and you will find it has gone up several degrees. We have demonstrated that over and over again here. Coffee also increases blood-pressure. Alcoholic liquors, tobacco, tea and coffee,—all of these things should be avoided.

Another important consideration is for the individual to be free from physical and mental strains of all kinds. He should not do any heavy lifting to strain the muscles or the blood-vessels. He should not have any mental worries. Mental worry of itself sometimes causes arteriosclerosis. The individual should be free from that. He should live a quiet, peaceful life, and should have at least eight hours' sleep out of the twenty-four. It is a very good plan to lie down in the middle of the day; this is for the purpose of reducing the blood-pressure, particularly if it is quite high.

A man with arteriosclerosis may have a blood-pressure of 200 or more. That means that the heart has to pump against a resistance that is considerably more than normal. If the pressure is 200 when it ought to be

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The Battle Creek Idea (Weekly)	\$1.00 per year
Good Health (Monthly)	1.50 " "
The Medical Missionary (Monthly)	.50 " "

These papers will be combined at the following prices:

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only 125, it is 75 points higher than it should be; so the heart must do nearly twice as much work as it should do, because the higher the pressure in the blood-vessels, the more work the heart has to do; so we need to keep the pressure low to protect the heart, for one thing.

REMEDIAL MEASURES

The patient should drink a moderate amount of water, but he should not take large quantities, because in taking large quantities of water the blood-vessels will overflow, and the blood-pressure will go up on that account. In addition to this, the individual may take neutral or warm baths, say at 98° F. That is one of the most valuable things in the treatment of arteriosclerosis. It dilates the blood-vessels in the outer part of the body, takes off the resistance, and lowers the blood-pressure. You can lower a man's blood-pressure ten or twenty points by giving him a warm bath.

In arteriosclerosis the wall of the arteries becomes thickened, so that the passage through the blood-vessels may become almost stopped up. You can readily understand that when this passage becomes partially closed, the heart must pump harder in order to drive the blood through this resistance. The warm bath dilates the blood-vessels, opens them up and allows the blood to go through more freely, when the blood-pressure will come down. It is a simple thing, and yet it is very much more valuable than many drugs whose action we may not fully understand.

A NATURAL CONDITION IN OLD AGE

Arteriosclerosis is a physiologic process that comes to all in the later years of life. At that period of life it perhaps can not be considered pathological, because it is a sort of natural change that takes place, and when it comes then it is not so serious as it is earlier in life. The individual can get along all right with it usually, and it does not produce, so often at least, the serious results that it may earlier in life.

Now, what does blood-pressure mean? The examiner tells you your blood-pressure is, perhaps, 125 systolic, and 100 diastolic. It means that there is a certain pressure inside of your blood-vessels—systolic when the heart beats, and diastolic in between the beats of the heart. The heart beats normally about seventy-two times a minute. Each time the heart beats, driving the blood into the blood-vessels, of course the pressure is higher than it is between the beats. The diastolic pressure is from ten to twenty-five points lower than the systolic pressure. This 125 means that the pressure inside of your blood-vessels at the time the heart beats is sufficient to support a column of mercury 125 millimeters high. A millimeter is one-twenty-fifth of an inch; so that 125 millimeters is five inches. So, to state it in terms you will perhaps understand better, it means that the pressure inside of your blood-vessels is sufficient to support a column of mercury five inches in height.

You can understand that the pressure is greatest in the heart. The blood comes out of the heart through a large blood-vessel

called the aorta, and as it passes out there are branches that divide and go all through the body, and you can readily understand that the pressure keeps getting less and less; the further we get away from the heart, the less the pressure is. Normally the pressure at the heart is 150 millimeters of mercury; and in the capillaries it is fifty millimeters of mercury.

Now, in addition to the neutral bath and the regulation of the diet in arteriosclerosis, we give what is called the Nauheim bath. All that is necessary to obtain this bath is to put certain chemical substances, which are present in the water at Nauheim, into the water here, and we get the same kind of water; and it produces a bubbling in the water by the liberation of carbonic acid gas; and that dilates the peripheral blood-vessels, and often is very beneficial. There are other things that may be done, but these I have mentioned are the most important. The careful hygienic life is the important thing in arteriosclerosis.

QUESTION BOX DEPARTMENT

EACH Monday evening Dr. Kellogg conducts a Question Box talk in the Sanitarium parlor, where all guests and patients are at liberty to submit questions relating to health and health topics.

Q. What is rheumatoid arthritis?

A. It is an autointoxication; it is saturation of the body with poisons which set up diseased conditions in the joints.

Q. What is the effect of wearing the wet abdominal bandage during sleep?

A. Excellent; it keeps you sleeping well, scares off the bad dreams, relieves the internal congestion, shuts off the irritating reflexes that disturb the brain, and is a most useful means of promoting sleep. It has been used in Germany for 200 years or more,—this simple method of wringing a towel out of cold water, putting it around the body, and covering it with a dry cloth. The German peasants do another thing. They take a pair of stockings, wet them, put them on, then put dry woolen stockings on over the wet ones, and go to bed. And it is marvelous what power there is in those wet stockings, covered with dry woolen stockings, to put a person to sleep.

Q. Should quinin be taken to break up a cold?

A. No. That is the last thing in the world to take. Quinin paralyzes the white blood-cells which are fighting for our lives. You say it will destroy malaria, but that is another thing. That is because quinin is a poison. It poisons the plasmodia, the parasites; but it does to you just the same thing that it does to the parasites, only you are bigger and tougher than the parasites generally, so it doesn't kill you. The doctor who is wise gives his patient just enough quinin to kill the malaria parasite, but not enough to kill the man or do him any serious harm, but there is a little injury in it. In a cold, there are no parasites to be destroyed. What you want when you have a cold is more energy, more life, more activity of blood-cells, and not less. Quinin is the last thing you should think of taking. What you need is a hot bath, and a cold bath; live in a warm room and keep the skin perspiring actively, drink an abundance of water, stop eating for a while, or eat fruits. The best thing in the

THE MEDICAL MISSIONARY

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Applicants received whenever vacancies. The next class will be organized the first of April, 1910. For full information address

Sanitarium,

Battle Creek, Mich.

world is to get out of doors and stay there. If it is very cold weather, it is so much the better. Cold is an infection, and this infection can be best dealt with by building up the vital resistance.

ARRIVALS

The following names appear on the Battle Creek Sanitarium register for the week ending May 29:

Wm. M. Scholl, Chicago; J. P. Knapp, C. E. Bostwick, C. R. Hinekan, Cleveland; Enoch Smith and wife, W. Va.; N. M. Christianson, Tex.; Dr. Matthews, W. Va.; Miss Eunice Wait, A. V. Oliver and wife, Ill.; Mr. and Mrs. D. E. McInnis, Miss.; Mr. and Mrs. F. W. Foote and nurse, Miss.; Mrs. A. E. Hieronymus, Ill.; H. Stearn, Detroit; R. C. and Mrs. Rieker, West China; Dr. and Mrs. C. W. Cleadmar, N. Y.; V. D. Houston, Okla.; Dr. J. W. Hough, Miss.; Mrs. Geo. E. Kollen, Mich.; Mary C. Lokker, Mich.; Mrs. J. Eggleston, O.; Grace M. Wright, O.; Mrs. David Scholl, Pa.; Mrs. W. J. McKone, Mich.; Wm. P. McGregor, Burch Run; Elizabeth McHugh, Chicago; Dr. G. Rosenberg, New York; Mrs. Wesley Delano, Mich.; Henry Flegenheimer, W. Va.; Dr. O. Whitney, Mich.; Mr. and Mrs. Fred W. Schaute, St. Louis; L. C. McCauley, Ia.; Mr. and Mrs. Thos. A. Hall, Chicago; Raymond Hall, Chicago; R. E. Hieronymus, Ill.; Frantz Hieronymus, Ill.; Miss Georgia Smith, Ill.; H. A. Brewth and wife, Kans.; Dr. W. A. Frazer and son, Minn.; W. W. Lopes, Mrs. F. Lopes, Mich.; C. D. Warner, Mich.; Miss Lillian Ganking and Ruth, Pa.; W. J. Smith, Jr., Mich.; R. W. Hiett, O.; J. G. Gunkinger, Pa.; A. M. Morris, Ia.; F. Wolf, City; J. J. Nattson, Tex.; D. E. Blake, E. R. Pratt, O.; Mrs. J. Pirates, Mrs. E. L. Welsh, Pittsburg; Wm. Maurer, O.; Geo. L. Dietz, O.; C. W. Winkelpfleck, O.; Mr. and Mrs. I. A. Treat, Chicago; W. P. Roberts, Ill.; H. C. Meyers, Ill.; C. Battestoin, Chicago; M. Battestoin, Chicago; Albert B. Lord, Seattle; Mr. and Mrs. J. S. Corwin, S. D.; W. McIntosh, Texas; M. B. Lande and wife, New York City; Mrs. Win. H. Yost, Ky.; J. M. Galbreath; M. R. Baskerville, S. D.; G. H. Hyland, O.; Bert M. Meses, New York; Roxie Kennedy, Ind.; Mrs. Joseph Kennedy, Ind.; Mrs. D. F. Kery, Ind.; O. D. Kinney, Pa.; J. M. Bishop, New York; W. E. Ireland, Pa.; Jas. Kenan, Chicago; Harry H. Shaw, Kans.; Mrs. M. R. Baskerville, S. D.; Mrs. Jessie L. Crawford, Ind.; Harry S. Kenworthy, Ind.; J. A. Rhabyor, N. Y.; C. S. Campbell, Montreal; W. A. Jones, Columbus; S. H. West, Columbus; A. L. Saffell, O.; Mrs. J. Saffell, O.; Mrs. E. W. Paindexter, Kansas City; C. D. McLain, Ill.; Mrs. J. W. Rawlings, Tenn.; B. T. Burtless, Mich.; W. G. Wiatt and wife, O.; D. E. Blake, Chicago; Mrs. F. D. June and daughter, N. Y.; Mrs. Elmore McCracken, Ill.; Mr. and Mrs. Staninger, Ill.; H. H. Cartinhour; A. D. W. Erskine, Chicago; W. C. Reid, Detroit; J. O. Pace, Ky.; Mrs. C. W. Morton, W. Va.; Miss I. Blakely, O.; Mrs. F. A. Pulle, O.; Miss O. Pulle, O.; Jane I. Gaunett, Detroit; Paul Wadsworth, Albany; Mrs. J. P. Phillips, N. Y.; Miss Stock, N. Y.; E. J. Dunn,

Ill.; Blanche Coon, Ill.; Howard Newland, Mich.; A. N. Springer, Ind.; Ella Welty, Ind.; Mr. and Mrs. H. F. Meguire, Ariz.; Frank Meguire, Ariz.; A. J. Harwood, Wis.; Mr. and Mrs. Roache, Ind.; J. C. Hunter, Ont.; Mrs. J. C. Hunter, Ont.; Mrs. S. P. Bush, Geo. Kollen and child, Mich.; J. M. Barker, Ind.; C. C. Wilson, Chicago; Ida G. Rock, Chicago; M. B. Mosherd, Chicago; W. E. Scott, Cincinnati; S. Lande, City; W. W. Nichols, New York; A. G. Adams, Indianapolis; Chas. Hopkinson, Cleveland; Mrs. W. S. and Miss Jeannette Judson, Cleveland; W. R. Landon, Ont.; Mrs. R. A. Darst, O.; H. H. Darst, O.; Henen Studebaker, O.; L. F. McPherson and sister, New Mexico; B. F. Burtless, Mich.; Mrs. Wm. Burtless, Mich.; Hazel K. Burtless, Mich.; G. E. McFarland, Chicago; S. J. Kingman, Detroit.

News and Personals

The members of the Sanitarium Domestic Science School were treated to a tally-ho ride by their physical director, Miss Mayme Bovee, on one of the days preceding the graduating exercises.

Dr. Carolyn Geisel spoke to the Sanitarium patients on Sabbath afternoon, giving some of the interesting circumstances of her recent tour of Chautauqua work in the South and elsewhere.

Dr. Elmer F. Otis, a member of the Sanitarium Medical Faculty, has gone to Porto Rico for the summer to take the place of Dr.



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**The Battle Creek Sanitarium School
of Health and Household Economics**

**BATTLE CREEK
MICHIGAN**

Original from

UNIVERSITY OF MICHIGAN

Harry B. Knapp, who is on a vacation during that time. Dr. Knapp has an extensive practice on the sugar plantation of Mr. Grief and in the surrounding country.

The date set for the Commencement exercises of the American Medical Missionary College is June fourteen, when a class of nine will be graduated with appropriate services. The address will be given by Dr. David Paulson, Superintendent of the Hinsdale, Ill., Sanitarium, and a member of the College faculty.

Dr. J. H. Kellogg, Superintendent of the Sanitarium, is at present in the East, being called to Boston to deliver the address on June 1st before the graduating class of the College of Physicians and Surgeons. While in the East he will also attend an important meeting of the "Committee of One Hundred," which is to be held in the City of New York.

The class in Domestic Science, Woman's Department of the State Agricultural College, Lansing, paid a visit to the Sanitarium one day last week, forming the acquaintance of our institution, especially of the Domestic Science Department, which extended to the visitors a cordial welcome. A return visit of the graduating class of the Sanitarium Domestic Science School was one of the features of graduation week.

The graduating exercises of the Sanitarium School of Health and Domestic Econ-

omy were held in the Sanitarium chapel on the evening of Tuesday, May 31. The principal address was given by Dr. Carolyn Geisel in her usual forcible and interesting manner. The graduating class numbers eight, the names of the ladies composing the class being as follows: Leah Hammond, Margaret MacVean, Irma Stock, Mrs. Julia Duffie, Martha Kumler, Alice Daugherty, Mrs. Lena Maycock, Leah Hubbard. The diplomas were presented by Dr. B. N. Colver.

The baccalaureate sermon before the graduating classes of the Domestic Science and Nurses' Training Schools was delivered last Sabbath forenoon by Rev. W. H. Phelps, pastor of the First Methodist Church of this city. The address was unusually forcible and impressive, upon the subject of the Stewardship of Life. Life is given to us as a trust, and therefore is not to be hidden away or wrapped in velvet, but to be used in the service of Him who gave it us, and at its close is to be laid down at His feet. Different ages have presented the stewardship of life in different aspects, sometimes the ascetic and at other times the indulgent conceptions of life, but life is a matter of balances. We are neither to go to one extreme nor the other. There are times when we should save our vital energies; other times when we should expend them freely. God challenges us to let him have our lives. Dare we yield them into his hands?

The chapel was beautifully decorated by

the florists. The music was also beautiful and impressive, and a large congregation crowded the chapel in every part. In every way the service was pleasant and memorable.

The Commencement exercises of the Battle Creek Sanitarium and Hospital Training School for Nurses are set for Thursday evening, June 2, just a little late to be reported in this issue. The address will be given by Dr. Kathrene Myers, field secretary of the Woman's Board of Presbyterian Missions. Diplomas will be presented by Dr. E. L. Eggleston. The class numbers forty-one, the personnel being as follows: Aurelia Gwendolyn Francis, Grace Staninger, Laura Mae Saunders, Bess Alice Lamb, Nina Pearl Smith, Selma Welhelmenia Peterson, Isabel Mackeracher, Elsie Catherine Stock, Lillian Stock, Lulu Helen O'Neal, Pearl Darling Sturdevant, Louise Amanda Dewing, Alice Marie Lake, Emma Schoefer Siegel, Leona Olive Stout, Clara L. Schopf, Lillian Belle Miller, James Edward Board, Myrtle Geraldine Winkler, Anna May Baldwin, Luonie Belle McCracken, Adelaide Mary Case, Violet Georgina Hawkesworth, Clara Ellen Wood, Katie Asenath Grover, Helen Augusta Loop, Mrs. Bettie L. Saunders, Della Pearl Martin, Adnah Mae Peelle, Edith Crites, Lela G. Devine, Hattie Mays Knapp, Laura Gertrude Tobiason, Virginia Stanhope Ferguson, Mrs. R. Jay Lambert, Elsie Pearl Pardon, Mary Alice Powell, Octavia R. Waters, Hattie Florence Dye, Mary Virginia Pollard, Myrta Estella Cummings, Elsie Elvira June.

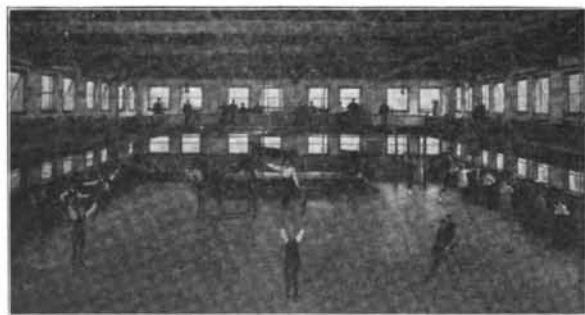
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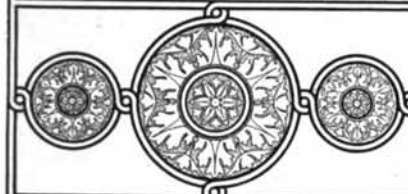
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THE · BATTLE · CREEK · IDEA



Vol. III No. 27

BATTLE CREEK, MICH., JUNE 10, 1910

Price 2 Cents

Intestinal Autointoxication

A Talk on Autointoxication by Dr. W. H. Riley—The Malady Described and Remedies Prescribed

AUTOINTOXICATION literally means self-poisoning. The term is rather a broad one; that is, it applies to quite a number of different conditions. We speak of intestinal autointoxication, but we may also have autointoxication from the accumulation of poi-

(Continued on page three)

ELECTRICITY IN THERAPEUTICS

The Natural Forces are Allies to Health
—How They are Utilized at
the Sanitarium

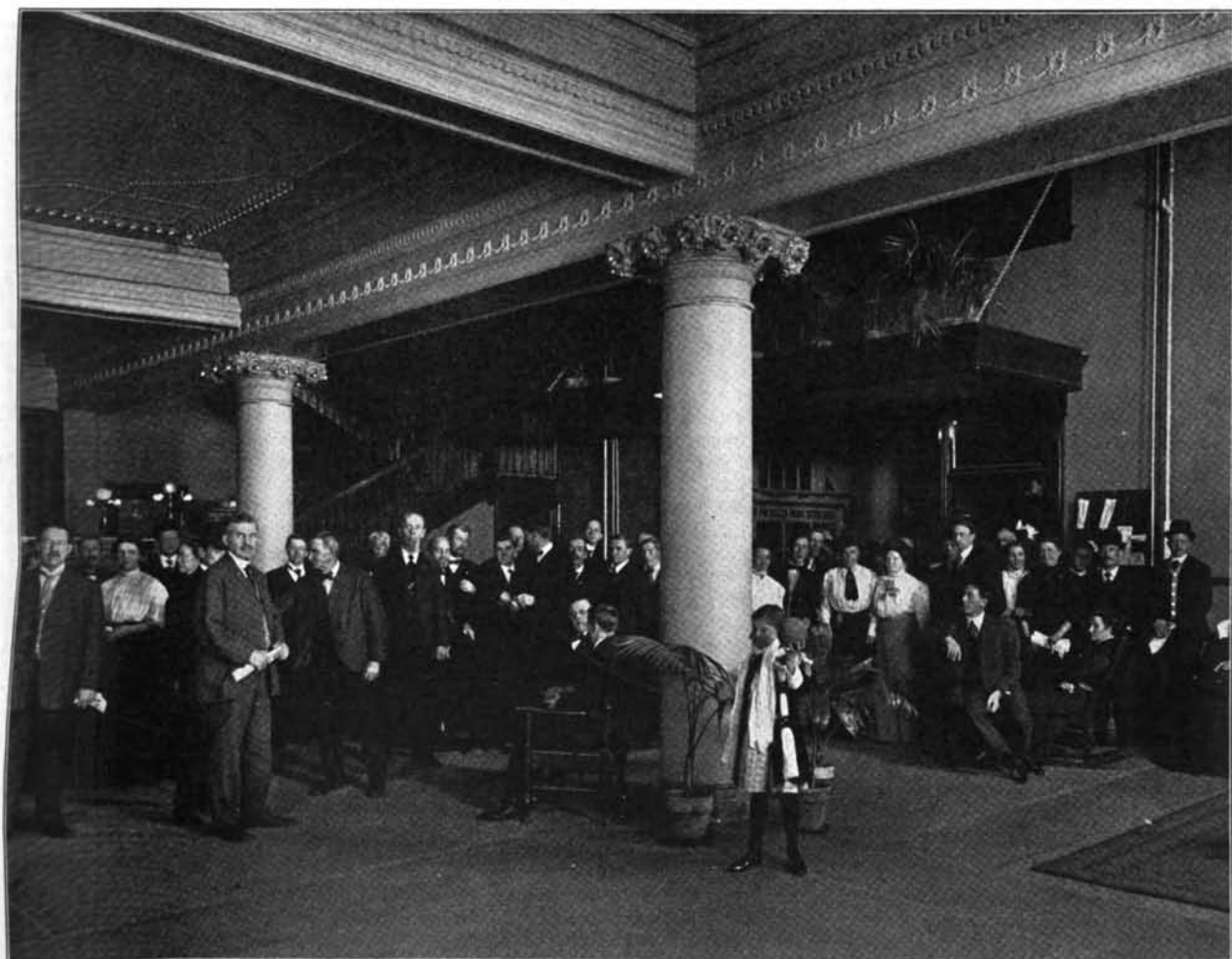
AMONG the great discoveries and wonderful developments in the modern world is that which has drawn out of the mysteries of Nature's laboratory the subtle force men have named electricity. All through the ages this force has been latent, undiscovered and un-

(Continued on page three)

Living on Our Capital

Or How We May Avoid Bankruptcy in Health—A Lecture in the Sanitarium Parlor by J. H. Kellogg, M. D.

HEALTH is contagious; it is as accessible as sunshine. The whole atmosphere is full of life and vigor. It is really hard to get sick. If a man wants to get smallpox, he has to hunt up another man who has smallpox in order to catch it. If a man wants to get dyspepsia, he has to sit down at the table



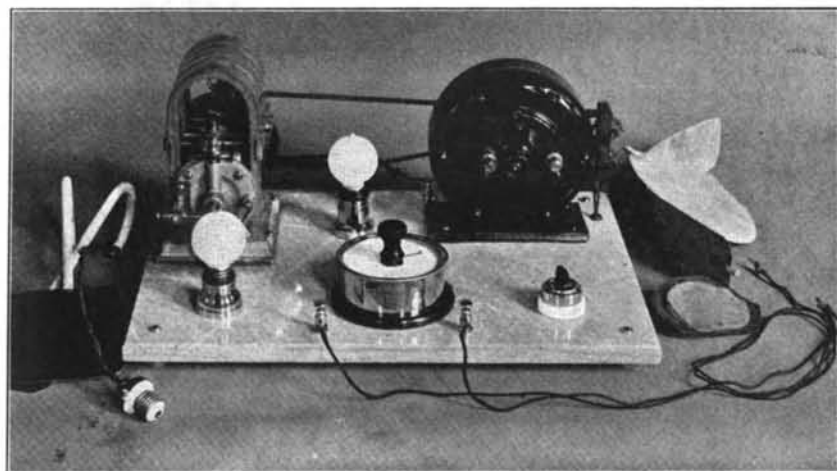
PATIENTS COMING FROM GYMNASIUM

three times a day for years and work exceedingly hard before he can get a really monumental dyspepsia. Many of you have been working at it for years, some of you for fifty years, and I dare say the time was when you said, "Oh, I can eat everything; I can digest anything." So you ate everything that came along, until finally you began to discover that somehow you felt a little uncomfortable; you felt a little heavy, beclouded, depressed, nervous or something, and later you may have had a little pain when you abused your stomach too much; and so you discovered that you were getting dyspepsia. It is wonderful how long one has to work and struggle to get sick, and how much one has to pay. Just think of the big dinners you have paid for that have finally made a dyspeptic of you. Figure up how much it has cost to become a real, first-class dyspeptic.

On the other hand, all in the world we have to do in order to get health is to open the mouth, inflate the lungs and take it in,

it; but unfortunately we smother the normal instincts given to us to guide us in the right way, until we really lose the way; and man has actually lost the way in diet so that he does not know what he ought to eat, and has to go to the doctor to find out, and to have the effects of his blunders repaired.

Just think how absurd it is for a person to travel five thousand miles to find out what he ought to eat! I presume there are very few people here before me who have not asked their doctor, "What shall I eat?" You say, "Things don't agree with me; what shall I eat?" Suppose that all the horses and cows and sheep in the country were waiting for somebody to give them directions what to eat; suppose all the birds had to go somewhere to get instructions what to eat. Man is the only animal that has so far lost his natural sense as to need to be told what to eat. An old Scandinavian proverb recognizes that idea. "The ox knows when to come home from grazing, but the fool never know's his stomach's measure."



A STATIC ELECTRICAL MACHINE IN THE SANITARIUM

for the whole atmosphere is full of life and health. When one feels dull and sleepy and drowsy, and miserable, and wretched, how a little turn, say half a mile, in the pure, crisp air does invigorate! There is life in it, vitality, rejuvenation, exhilaration. So good, wholesome food has vigor, vitality and health in it.

People put into their stomachs the most awful combinations of things that were not intended to be eaten at all—contrivances of the devil, I think I ought to say, for killing off the human race. Give any of those things to a young child, and it would reject them immediately. Very few of them are relished without cultivating an appetite for them; and the fact that it is necessary to cultivate an appetite for a thing is evidence that it is really not wholesome. The foods that are the most natural, the most wholesome, one likes at the first taste. It is a case of love at first sight when you come in contact with a pear or a rosy-cheeked peach, or a nice ripe apple. You never saw a child that would refuse a plum, or an apricot, or a strawberry. Give a monkey a nut or some fruit, and it knows right away whether it is good or not. We have the same instinct until we destroy

The majority of men and women who are eating just what they like, have no appreciation of the mischief that is being done. They think, "By and by I will find a doctor that has some good stomach medicine, and I will take his medicine, then I will be all right." My friends, such a thing has never happened. Nobody whose stomach has become diseased as a result of wrong habits of living for years was ever cured by medicine of any sort, or by anything else. Such a stomach can never be cured. The individual may be assisted to get into a comfortable state by eating proper foods and taking great care of his habits, so that he may be relieved of his unpleasant symptoms and live very comfortably for a long time; but he never can get back what he has lost. The stomach that has been abused for a series of years is crippled, and it always must be treated as a cripple.

People who abuse their stomachs have no realization of what they are doing to themselves. They do not stop to think that this food that goes into the stomach, if it is not digested and made into good, vigorous brains, nerves and muscles, is going to be made into poisons instead, and that those poisons are going to be a load upon the brain and upon

the vitality of the body; that they are going to overwork the liver; that it is those poisons that make biliousness, that overwork the kidneys, that are really the great cause of Bright's disease. The eating of flesh food in large quantities, so that there is a large amount of fragments of dead things left in the colon to decay and putrefy and poison the body, is in my opinion a greater evil than alcohol.

Alcohol is bad, coffee is bad, but flesh-eating is worse, for the man who is food drunk is drunk all the time. The worst rum blossom I ever saw was owned and exhibited by a clergyman and temperance writer. This gentleman reminded me of an occasion when I was once giving a temperance lecture and showing upon a chart the rum blossom and telling about it, and upon the front seat sat a very prominent gentleman, a deacon in the church, with the most prodigious rum blossom I had up to that time seen. People kept looking at him and at me. Whether they were suspecting him or me, I was not quite certain, but it rather embarrassed me. Neither of these men had ever taken alcohol at all; they were temperate men; but the poisons generated in the intestine and the stomach, absorbed into the blood, had produced a condition that resulted in this formidable development of the nose.

Here is a lady with pimples all over her face; here is one with discolored patches of skin so that she does not like to appear until she has applied cosmetics to cover up those disfiguring marks. The cause is not alcohol, but tea, coffee, and beefsteak, and the poisons that result from the decomposition going on in the colon.

I am satisfied that animal products were never intended for human consumption, and that the incubus of this erroneous diet is a load upon the human race that can hardly be estimated. Over in a certain province in Russia they still retain something of the old medieval practice of falconry. They catch young hawks and teach them to catch birds, and they have a very curious way of catching the young hawks. Their method is to take some small gravel stones and cover them with fresh blood, and place them where the hawks will find them. The hawks smell the blood, and they come down and swallow very quickly a handful or more of those pebbles. Then the man in hiding rushes up, and the hawk spreads its wings and runs along the ground, trying to fly, but it can not get off the ground. It has its stomach full of pebbles, and is loaded down. And that is the very situation in which thousands of business men find themselves. Instead of a dinner naturally adapted to the human body, to put strength and life and energy into the body, they swallow something nearly as indigestible as pebbles, from which they can not possibly extract energy and life. That is why we have so many business failures.

I believe that if you will stop to think about it, and look back over the men who have made business failures after having been successful for years, you will recognize the truth of what I am saying. I have seen that man a good many times, because he comes here when he fails. You would be astonished to see how patients crowd in here

when they have hard times. I have a picture in my mind of the typical business man who has failed. He has sunken eyes, he has a coated tongue, he has an awfully bad breath, he has a dry, wrinkled and tawny skin; he has a perspiration with an offensive odor; he has cold hands and feet; and we find that that man's stomach is just about good for nothing, and that his colon is filled with decomposing, poison-forming material. From my observation, I believe the majority of business men who fail do so because they have got where they no longer have the keen acumen they once had, the quick appreciation, the ability to decide and act quickly and correctly. It is a loss of efficiency. If a man wants to do a work in the world, to be efficient, above all things he must eat for efficiency; for there is nothing that so thoroughly, so immediately, so positively and in such a high degree influences efficiency as does food—food and methods of eating.

ELECTRICITY IN THERAPEUTICS

(Continued from page one)

used, until within recent years. For years after Benjamin Franklin had drawn the vivid spark from the electric clouds the fact of the existence of the uncanny force was not utilized, because men did not know how to use it, and only held the dangerous element in awe and fear.

But the discovery that the electric energy might be trained along metal wires led to the telegraph. The fact that the obstruction of the passage of the current provoked force was seized upon and in a short time men found themselves in possession of a great motive, a potential force, whose powers could be utilized in producing light, heat, motion; and to this the medical profession added the stimulation of vital energy.

Electricity is a mechanical, physical, and therapeutic agent covering a field of possible activities greater than that of any other natural force. The discovery of the expansive force of steam was a great step in progress; but the introduction of electricity was fraught with far greater potentialities. The adaptation of electricity to mechanics is so much more versatile than that of steam that steam is being made the servant of electricity and is largely used to produce the facile but powerful current which has eclipsed it in art and industry.

In the treatment of disease the Battle Creek Sanitarium utilizes electricity both mechanically and as a direct therapeutic measure. That is, it is used to produce light, heat, motion, and to impart and encourage vital force.

In the treatment of diseased conditions electricity is applied directly to the skin, muscles, nerves, and all the organs and tissues by means of electric baths. The warm bath being employed, currents of electricity are passed through the water in which the patient is placed, or static currents are applied to the body in a dry room, or local applications are made to parts of the body requiring such effects. In this procedure the

various currents are employed, as faradic, galvanic, sinusoidal, and static currents. High-frequency currents are also used in the treatment of some disorders. The effects produced by these varied measures are numerous, some being stimulating, and others sedative in character.

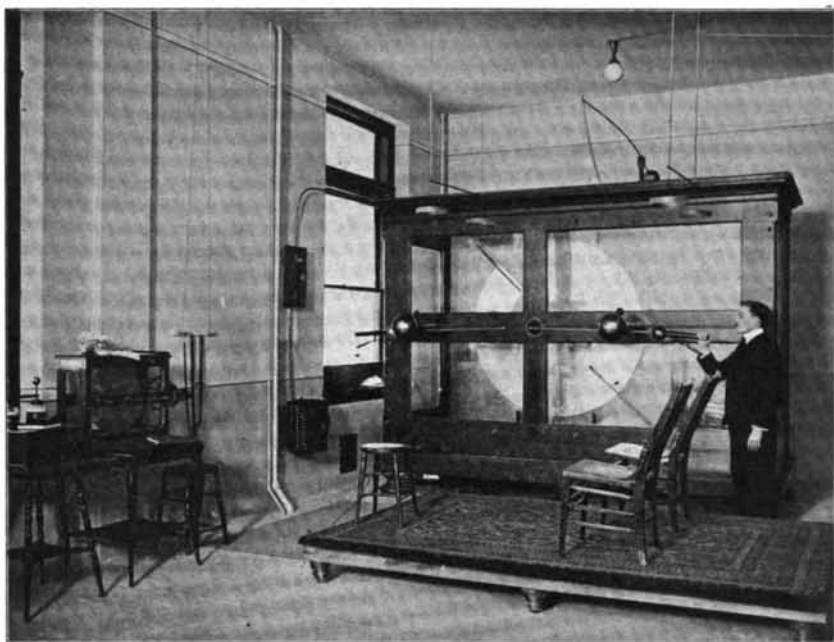
The therapeutic effects of heat and light are becoming better understood now than they have been for ages past. Light and life are boon companions. Warmth is the element of both. The very best light and heat come to us direct from the sun. No artificial light has the healing in it that sunlight has. Next to it is the electric light, the nearest approach to sunlight yet known.

The Battle Creek Sanitarium was the first place to experience this truth. Here for the first time electric light was used medically, and here the electric-light bath had its origin. Others were not slow to perceive the

trivances used to produce exercise and to stimulate the circulation and other vital activities. There is a large department devoted to this feature of medical treatment known as the Mechanical Swedish Department. Any portion of the body or the entire body may be subjected to manipulations, oscillations or gentle rapid vibrations which send a thrill of life and activity through and through it.

It is well-nigh impossible to explain in type all the processes and methods in which electricity is used and applied in this institution; let it suffice to say that those conducting it have been foremost in discovering and utilizing its possibilities.

What the future may reveal concerning the possibilities of electricity, no one can presage, but already it has proved itself a very valuable ally to the human family.



A SINUSOIDAL MACHINE

great advantage they possessed and to adopt these measures. They were carried to the Old World and soon found their way to royal palaces. The heat and light thus produced act in conjunction upon the body, penetrating the tissues and assisting nature to restore normal activities and dispose of burdensome poisons.

The electric light is employed here in various forms and modifications. There are the full bath, in which the whole person is exposed to concentrated sunshine; the partial baths for trunk or limbs; and the local lights that are applied to more limited surfaces. The simple incandescent lights are most employed, but in certain cases the strong arc-light is brought in and there are lamps that concentrate the rays of 15,000 candle power upon a small surface. The Finsen ray, X-ray, and the violet ray are also used as cases may indicate.

The electric current is utilized as a motive power for healing purposes. This is principally in vibrators and other mechanical con-

AUTOINTOXICATION

(Continued from page one)

sons in the body that are produced by the muscles, by the glands, by the brain, by the nerves,—in fact, by all the tissues of the body. Chemical changes in the various tissues are going on all the time. Many of these changes are retrogressive, analytical, downward, destructive; and in the breaking down of many highly organized chemical compounds the lower chemical bodies are formed, and these simpler compounds are usually poisonous. The carbonic acid gas that is eliminated from our lungs is an example of this.

Fill a bottle with lime-water and put in two tubes, one through which you may breathe into the lime-water, and another tube to allow the air to escape out of the bottle. When the lime-water is put into the bottle it is perfectly clear, but

(Continued on page five)

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THE GREAT ISSUE

THE great issue before the American people to-day is not the tariff; it is not the high price of living; it is not the trusts, municipal control of public utilities, socialism, unionism, the national finances, or any other social, political and financial problems which are so much discussed in current newspapers and magazines.

THE GREATEST QUESTION BEFORE THE AMERICAN PEOPLE AT THE PRESENT TIME IS THE QUESTION OF A NATIONAL DEPARTMENT OF HEALTH.

The American race is perishing, and at a rate so rapid as to be appalling.

The expectancy of life after forty years is rapidly lessening, as shown by life insurance statistics.

Fatal chronic maladies are multiplying at a prodigious rate. Deaths from diabetes have doubled in a dozen years. Cancer, heart disease, kidney disease and arteriosclerosis are multiplying almost as fast.

Human vitality and energy are our greatest national resources, as President Roosevelt so well said. Vastly more important are they than Alaskan coal fields, water-power rights, irrigation projects, or any other national issue before the American people.

We are a dying race. We have conquered yellow fever, we have nearly conquered malarial fever, we have solved the mystery of the plague and typhoid, we know how to master tuberculosis. We are saving the lives of nearly half a million babies every year. And thus we have been able to keep up the average longevity, and even to gain a little; but the centenarians are disappearing. Old age is going out of fashion. Men and women die with all the symptoms of old age but not old enough to be called aged.

Subtle influences of varied sorts are insidiously undermining and destroying the constitution of the race. A great national health department is needed to investigate this question with all the thoroughness and scientific precision which national authority and adequate facilities alone can command.

President Roosevelt recognized the impor-

ance of this matter and urged the necessity for the organization of a special health department.

Both political parties promised it in their platforms. President Taft urged it in his message.

The great American Medical Association, representing 100,000 physicians, who are not paid for keeping their patrons well, but only for service rendered during illness, is urging the passage of the Owen bill now before Congress, in order that the people may be helped, even against the financial interest.

This is a matter in which every man, woman and child is interested, and in which every reader should take an earnest and active part.

Write at once to your representatives and senators in Congress and urge them to support Senator Owen's bill. It is the most important matter before Congress. Nothing so important has come before Congress in fifty years. Immediate action is necessary. Do not delay a day. Write at once and watch your representatives to see how they vote.

J. H. KELLOGG.

FADS AND FANCIES

THE people of this enlightened country fancy that they have outlived the day of ghosts and hobgoblins, that the reign of superstition is entirely over, and that her vanishing spectral form is but dimly seen in the distance. But the days of hocus jocus are really here yet. The appearance of Halley's comet furnished an illustration of that, for thousands of people drew a long breath and put on their old smile on the morning after it was usually conjectured we had safely passed through "the tail."

In the matter of sickness and health the old bonds of hoary superstition still bind us. With most people health is simply a question of luck and chance. The lucky man is the one who with his family escapes from the clutches of disease, while the man who is ill or whose wife is an invalid, or whose children die, is pitied as an unlucky wight whose star of fate has led him into the wrong path. His friends rally around him with every imaginable suggestion of remedies. He is advised to do this, and to try that; to drink beer, chew tobacco, wear plasters, soak his feet, poultice his head, wear an old dirty sock around his neck, put on a slice of pork, swallow a box of pills or a dozen bottles of bitters, drink catnip and castor oil, grease the soles of his feet, drink ginger tea, be careful not to breathe night air, etc., etc., etc.

To it all there is neither rhyme nor reason. There is an entire absence of natural sense; the whole lingo is a relic of a barbarous past

for which intelligent people should have no use.

There is never an illness or a pain for which there is not adequate, definite cause or causes, and from every one of those conditions there is a rational way out.

The preservation and restoration of health is a definite and exact science. Disease is not a nemesis, a malign spook, that goes about seizing this one and that one as a man-eating monster might be supposed to do. Nor is sickness an infliction of Providence, an evidence of wrath, a vindictive visitation of divine displeasure. The theory so often expressed on funeral occasions that death is the act of God, that our Heavenly Father wants our loved ones and therefore takes them away from us, is false. It is contrary to the nature of divine compassion and to the Word of inspiration which declares that "As I live, saith the Lord God, I have no pleasure in the death of him that dieth." He is the author of life, not of death. Sickness, suffering and death are the consequences of physical sin, of wrong living, of bad practices.

We can never frighten away these consequences by incantations or magic. The only way out is by discovering our errors, turning away from them, getting into the right path and staying there.

THE SUMMER SEASON

THE time of annual vacations is now at hand. Many people are looking forward to a few weeks of rest and recuperation and seeking the best place in which to spend this time. Weary with continued work and care, and perhaps run down and "out of sorts," they desire a place that will afford the most rest and quiet, and that will do the most for them by way of restoration and a general uplift. These are the men and women who are carrying loads, doing work in the busy world of business or professions.

Many of these will think of the Battle Creek Sanitarium as the proper haven of rest. It is a place of quiet and of pleasant associations. It has nothing of the hospital air. It is homelike, plain, pleasant. The conditions are conducive in every way to a rapid uplift physically and mentally. The tables afford an abundance of tempting, healthful food; the medical measures are physiological and natural; the climate is ideal; the surroundings are attractive; and the cost of living is kept as low as possible.

The institution is now better equipped than ever before. It is better prepared to receive and care for its summer patrons than at any previous time in its history. The present attendance is quite large, and a great work is being done for those who seek the benefits of the place.

AUTOINTOXICATION

(Continued from page three)

after you breathe into it a few times it becomes milky. This coloring is due to the precipitation of lime by the carbonic acid gas breathed into it. The carbonic acid gas has the formula CO_2 . It is made up of two different kinds of elements, carbon and oxygen; one part of carbon and two parts of oxygen. This is a waste product. It is one of the "end products" of metabolism in the body. It is a chemical substance, a simple compound, but it is of no use in the body, and it must be eliminated, which is done through the lungs. There are other substances that we might call natural products of metabolism,—urea, for instance, which escapes by the way of the kidneys. Indeed, there is quite a long list of these final products of chemical changes in the body. Now, if they are retained in the body, we have autointoxication.

The poisons produced by the tissues in the form of carbonic acid gas and urea are different, so far as their origin is concerned, at least, from the poisons produced in the in-

testines, which are formed by bacteria or germs. The poisons produced in the intestines are the result of the germs living there and breaking down the protein elements of the food before it has been absorbed into the blood; but these other poisons come from the chemical changes in the tissues or the muscles, the glands and the brain, and other parts of the body. And if these are not eliminated, we have autointoxication, or, to speak more correctly, toxemia. Toxemia means poisons in the blood, while autointoxication means self-poisoning. Practically, as to the results, there is not very much difference. Autointoxication might refer to poisons in the blood, in the tissues, in the bowels, or any other part of the body; but as the term is usually applied, particularly in this institution, it refers especially to poisons that are absorbed from the bowels.

HOW CAN AUTOINTOXICATION BE CURED?

The first thing is to avoid taking any more poison into the body. There are only two ways in which material can get into the body, by the stomach and the lungs. We take the air into our lungs, and the oxygen in the air is finally absorbed into the blood and carried to all the tissues of the body.

We take material into the stomach in the way of food and drink. If we see to it that our food is wholesome, digestible, nourishing and pure, then we shall avoid taking poisons from that source. The germs that live in the intestine live on protein matter; consequently the protein furnishes the pabulum out of which these poisons are made. Therefore it would be a very wise thing for us to limit the amount of protein taken into our bodies, particularly if we are troubled with intestinal autointoxication. And that is why in this institution we advise many of you to keep the protein elements of the food low.

The work of Chittenden of Yale and many others that I might mention has taught us that the amount of protein elements required in the body is much less than we were formerly taught; only about one-tenth of the total intake of food should be protein. There are perhaps several objections to an excess of protein, but, *first*, it furnishes a large amount of food for the poisonous germs that are lurking in the intestines. Then, more than that, if we take into our bodies and into the blood more protein than we need, it must be eliminated through the kidneys, and we are in that case overtaxing the organs and simply doing work without getting any return. It is like putting a lot of cinders into your furnace with the coal. They only clog up the furnace; they do not furnish any heat, or do any good; and it is very much the same when we take an excess of protein food, it simply taxes our organs without giving us any return. So, particularly for those who are troubled with any kidney disorder, arteriosclerosis, epilepsy, or any irritable nervous trouble, the protein elements of food should be kept low.

The second thing in curing autointoxication is to get rid of the poisons that are already in the body. To accomplish this the stomach and bowels should have careful attention. The use of yogurt is valuable in preventing the growth of these poisonous germs; and the individual should drink freely of water, because these poisons are circulating in the blood, lurking about in the tissues and in the crevices of the body, and if plenty of water is taken they are thrown into the circulation and carried out of the body by the way of the kidneys. Another very important thing is plenty of exercise in the open air. That increases oxidation and thus burns up the poisons. These, then, are the three important things in curing autointoxication—to prevent the intake of any more poisons; get rid of those that are already in the alimentary canal; and burn up those that are in the tissues.

Outdoor air and exercise are very effectual in burning up the poisons in the body. Exercise stimulates the circulation, drives the blood around to the lungs, where the gaseous poisons it carries are thrown off and from the fresh air more oxygen is taken in, which burns up or oxidizes the poisons that are present in the tissues. The oxygen is carried by the blood current to the tissues, where it comes in contact with the carbon-containing food taken into the body by way of the stomach, and when they unite, oxidation takes place. So that I wish to emphasize these three things—to eat pure food, to drink

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Battle Creek Sanitarium Periodicals

Three journals are published at the Battle Creek Sanitarium:

The Battle Creek Idea (Weekly)	\$1.00 per year
Good Health (Monthly)	1.50 " "
The Medical Missionary (Monthly)	.50 " "

These papers will be combined at the following prices:

Battle Creek Idea and Good Health	\$1.85 per year
Battle Creek Idea and Medical Missionary	1.80 " "
Good Health and Medical Missionary	1.85 " "
All three journals one year	2.10 " "

NOW IS THE TIME TO PROVIDE THE BEST OF READING

Address either of these Journals, - - Battle Creek, Michigan

plenty of pure water, and to take plenty of outdoor air and exercise.

We also give various kinds of baths to help along the work. The warm and the hot baths increase the elimination from the skin; the cold baths increase the oxidation. The cold bath does very much the same thing that a walk out in the cold air will do; and it does it in a decided way. And then, there are other measures taken to increase the blood circulation through the liver, the stomach, and the intestines,—to get rid of the old blood and get fresh blood in. Many people come here who have dingy looking skin, the muscles are soft and the muscle tone is reduced; the stomach and the intestines are prolapsed because the abdominal muscles are weak and relaxed, and allow the viscera to drop down. The organs being displaced, the blood can not pass readily through the stomach and the liver, and we have a passive congestion, and very often the abdomen is exceedingly sensitive to pressure. These abdominal muscles must be treated to make them strong enough to hold the organs in place. The displacements of these organs are not necessarily a part of auto-intoxication, but we often find them present.

In auto-intoxication the patient usually has a pasty coat on the tongue, and very often a foul breath. The appetite is usually poor, the bowels are constipated, very often the patient does not sleep well, is nervous, and sometimes suffers from mental depression of a severe type. I remember some years ago a person came under my care who was suffering with extreme melancholia, and had delusions of a mild type. We cleansed the bowels thoroughly, administered a warm bath; the patient slept well that night, and the next morning was practically normal. It is wonderful what a change a little treatment of this sort makes in such cases. In this case when we got rid of the poisons the mental symptoms all cleared up and the trouble disappeared.

know, every Monday morning, I have a sick headache, and I think it is my Sunday sermon that does it." I made inquiry of his wife as to what she gave him for dinner on Sunday, and from the reply I made up my mind that it was the Sunday dinner that made that sick headache, and not the Sunday sermon. I do not think he got up steam enough in his Sunday sermon to do his head any harm, but his wife got up a dinner for him that was an indigestible mass of compounds, and I did not wonder that his head ached.

Q. What is meant by auto-suggestion?

A. I can explain that word by an illustration. We used to have a man here with us who had auto-suggestion in a very bad form. He knew he had a bad stomach; he knew it would not digest anything. He would come to see me right after dinner and say, "Doctor, my dinner is not going to digest; I can feel it lying right there, just like a stone, and I know it will never digest in the world." Then he would come around two or three hours later and say, "O, Doctor, my stomach, my stomach! My dinner is not digesting; I can feel it, just like a stone." Then in an hour or two more he would come around and feel it like a stone over in another place. He actually followed that dinner through all the twistings and turnings of the small intestine, and never allowed it to get out of sight for a moment. His stomach could not digest under those circumstances, and it is no wonder; it was kept in a state of stage fright that was enough to paralyze it. That is auto-suggestion of a bad sort.

Q. What relation does the general health have to catarrhal conditions of the nose and throat?

A. A most important relation. So long as the body is well, and the blood is pure and

highly vitalized, it will not permit any part of the body to become sick. When one part of the body is in a state of chronic disease, the entire body is sick; the blood is depreciated, or such a state of things would not be permitted.

Q. Can stiffness of the joints be removed?

A. Yes; one part of our business here is to limber up stiffened joints. If you are fifty or under, I think there is hope for you by all means. Of course, when the joints have become disorganized, that is another thing. When the cartilages are destroyed and the bones are grown together, fixed, solid and inflexible, it is then too late.

Q. What causes enlargement of the lingual tonsils?

A. The tonsil is a lymphatic gland, and the same thing causes their enlargement in the mouth that causes the enlargement of the glands of the neck and other parts of the body. They become infected, and the gland enlarges so that it may protect the part against encroaching germs; but the gland itself often sacrifices its usefulness in this effort at self-defense.

Q. What should be done in a case of this sort?

A. It is best to remove those enlarged glands. They become useless after several acute attacks.

Q. Why were fish, poultry, etc., so plentifully given us if they were not considered suitable food for the human race?

A. Here is that very old question again. If chickens, fish, and these things were not intended to be eaten, why are they here? That is, everything is to be eaten if we do not know what else to do with it! The

QUESTION BOX DEPARTMENT

EACH Monday evening Dr. Kellogg conducts a Question Box talk in the Sanitarium parlor, where all guests and patients are at liberty to submit questions relating to health and health topics.

Q. Can a closed tear-duct ever be cured?

A. That depends. Consult an oculist. If the lining membrane has been obliterated, you can hardly expect to have a cure.

Q. What causes sore mouth and tongue?

A. Simply lowered vital resistance, because you have reduced your vitality to such a degree that you are a prey for the germs.

Q. What causes the periodic relapses of persons having stomach trouble?

A. I think it is periodic dinners in the majority of cases. I remember some years ago a preacher came to visit us, and he said, "Doctor, I have a very peculiar trouble. You

THE MEDICAL MISSIONARY

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Among other special advantages offered are laboratory instruction in bacteriology and chemistry, the use of the microscope, urinary analysis, practical course in cookery and dietetics, medical gymnastics, swimming, anthropometry and open air methods.

Applicants received whenever vacancies. The next class will be organized the first of April, 1910. For full information address

Sanitarium,

Battle Creek, Mich.

stomach is a receptacle for rubbish we do not know how else to dispose of! We must eat everything and anything we find we do not know what else to do with! That is a strange logic, surely. It is simply ridiculous to suppose that we must eat everything that seems likely to get in our way. Everything has its purpose in the great economy of the world, irrespective of our appetites. Our thoughts have revolved about our appetites so long that it almost seems true, as a physiologist said some years ago: "An animal is a stomach with various organs appended"; and I have met a lot of people who would answer to that definition pretty well,—a stomach with certain organs appended.

Annual Meeting of the Michigan Sanitarium and Benevolent Association

The regular annual meeting of the Michigan Sanitarium and Benevolent Association for the year 1910 will be held in the chapel of the Battle Creek Sanitarium on North Washington Ave., Battle Creek, Mich., Thursday, June 30, 1910, at 3 P. M., standard time, for the election of trustees and the transaction of such other business as may properly come before the meeting.

By order of the Board of Trustees.

GEO. E. JUDD, Secretary.

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ARRIVALS

FOLLOWING is the list of arrivals at the Battle Creek Sanitarium for the week ending June 5: Mrs. Julia Robertson, Minn.; Mr. and Mrs. F. Everts, Mo.; H. E. Sala and wife, Mich.; Mrs. J. M. Sala, O.; Joseph Gage, Mich.; Mr. and Mrs. T. W. Sharon and Mr. and Mrs. H. Fuller, Chicago; H. A. Coffeen and wife, Wyo.; E. G. Norman, Ill.; B. Wolf, Chicago; L. O. Stewart, Detroit; John J. Mason and Mrs. Mason, Ont.; Thos. Dailey, Pa.; E. Erickson, Mich.; M. G. Newell, Minn.; Mrs. Anna M. Ireland, Pa.; Miss MacKenzie, Ont.; Mr. and Mrs. T. S. Chapman, Ill.; Heyman Shapiro, New York City; Miss Kate R. Carlisle, Mich.; Mrs. M. A. Warren, Neb.; Chas. Stevens and W. F. Banckner, Chicago; Harvey S. Smith and Mrs. Smith, Wash.; Mr. and Mrs. A. Hohman, Ga.; Mrs. G. F. Gallup and child,

Ky.; Anna L. Case, Ind.; Alice Staninger, Ill.; Walter F. Sweggett and wife, Ind.; Elias H. Peele, O.; J. Newton Nind, Chicago; Jas. M. G. Clymouth, Mont.; S. W. Saalbury, New York City; Orrene Hart, R. E. Hart and wife, Mich.; Norbert Florsheim and J. Z. Wise, La.; Eda Cummings, Mo.; Olga Pardon and Theresa Hohiesel, Mich.; G. H. Cole, Duluth; Mr. and Mrs. M. C. Treat, Pa.; Mrs. Theo. Heenan, Mich.; Mr. and Mrs. H. Cummins and Mr. and Mrs. T. C. Cummins, O.; Mrs. J. A. Cummins and Mrs. C. H. Cummins, Mich.; J. W. Kerney, Milwaukee; Jos. R. Mann, Pa.; Alburtnus Cummings, Mich.; Mrs. A. L. Fonda, Mich.; Mrs. A. Davis and daughter, Chicago; Miss Nannie Caldwell, Miss Ora Clath, Ky.; H. H. Wincke and wife, Mich.; John Crites and wife, Ind.; Dr. Katherine Myers,

Chicago; J. E. Williams, Ark.; O. Johnson, Duluth; P. M. Hayworth, Roxie Kennedy, Ind.; J. E. Wooley, Calif.; Mrs. Geo. Wilson and daughter, S. Dak.; G. G. Gans, Pa.; Miss Effie M. Miller, Washington, D. C.; B. F. Burtless, Mich.; Mrs. C. J. Luse, O.; John Staninger, Ill.; L. M. Duex and wife, N. Dak.; Mrs. Geo. F. Schwartz, Ill.; H. R. Landon, Ont.; M. E. Newton, N. Y.; Jakob Bolin, Salt Lake City; Percy T. Magan, Tenn.; A. B. Holbert, Ia.; Mrs. C. R. Barritt, Chicago; Miss Eva L. Bareker, Ill.; Mrs. Chas. F. Kefoorn, Pa.; F. J. M. Bowen, Chicago; Mrs. M. D. Seales and Hubert Seales, Tex.; Lou Killian and wife, Neb.; T. A. Jackson, W. H. Gibbs and Mrs. Gibbs, Ark.; Ethel Kennedy, Ind.; B. A. Luning, Fla.; R. M. Combe, Ia.; Mrs. Robt. S. Porter, W. Va.; D. E. Blake, Chicago; Mrs. G.



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ONE SPECIAL FEATURE of this school is that students are given an opportunity to meet a large part of their expenses by work along lines which aid them in their studies.

**The Battle Creek Sanitarium School
of Health and Household Economics**

**BATTLE CREEK
MICHIGAN**

M. Shiner, Wyo.; Mabel Long and Chas. H. Chase, Mich.; Josephine Morgon, Mo.; S. S. Ronkin, Wyo.; F. M. Mosely and L. M. Mosely, Ala.; W. Rider Wanyman, Ill.; Mrs. B. Wolf, Chicago; A. K. Cleveland, Mich.; John Becker, Jr., N. Mex.; Helene Landweer, Chicago; Mayme Houks, Ind.; Frank Robinson, Ill.; H. S. Renkeit and wife, O.; Mrs. J. M. Obier, Chicago; L. McCarty, Canada; Miss Helena S. Voegtly and Miss Flora E. Voegtly, Pittsburg; J. G. Ludt, Colo.; Mrs. B. F. Hammond, Mich.; Geo. E. Kollen and child, Mich.; Grace Grobe, Milwaukee; W. W. Jackson and wife, W. Va.; Mr. and Mrs. Geo. Kline, and Mrs. Baughman, O.; Allen Holman, Ala.; Meta E. Heaas, Mich.; W. H. Lerch, Pa.; Mrs. Geo. Lerch, Minn.; G. D. Klein and wife, Mrs. Ida Backman, O.; W. J. McConnell and wife, Mass.; Albert Troll and Laura Troll, O.; E. Corrigan and wife, Tex.; Mrs. M. Barker, Tex.; Mrs. H. Sterns, Detroit; Mrs. V. K. Irion, La.; E. B. Bromhead, Ga.; A. J. Diehl, Mich.; Mrs. M. S. Paisal, Chicago; E. P. Bennett, Tex.

Mrs. S. E. Barnhart has returned from Iowa, where she has been visiting her parents for the past month.

The Nurses' Alumni gave a picnic at Lake Goguae on Monday in honor of the nurses who graduated last week.

The senior class of the American Medical Missionary College has returned from Chicago, where they have been studying during the past seven months.

Mrs. Frank Lessard and son have returned to their home in Minneapolis, after spending several months in the institution. Mrs. Lessard is much improved in health.

Mrs. Hattie Allee, of Washington, D. C., spent a few days last week with Miss Lotta Burden and other friends in the institution. Mrs. Allee is en route to Loma Linda, Calif.

Mrs. Ida Hebner-Hayton, of Shelby, Mich., formerly connected with the Sanitarium Correspondence Department, is visiting friends in and around the institution.

Dr. W. T. Lindsay, a graduate of the American Medical Missionary College, now of the Chamberlain Sanitarium of South Dakota, stopped at the Sanitarium for a short time last week.

Miss Carrie Zahn, and the Doctors Eggleston, Martin and Vandervoort are attending the American Medical Association in ses-

sion at St. Louis, Mo., this week. Doctor Eggleston will read a paper.

Dr. Stella Norman, of the Moline (Ill.) Sanitarium, a graduate of the American Medical Missionary College, class of '06, has been spending a week with us, visiting old friends and attending the graduating exercises.

The Doctors Paul and Linnie M. Roth have returned from Paris, where they have spent the last year, and have resumed their work in the schools and laboratories connected with this institution. Their many friends extended to them a most hearty welcome.

We are requested to announce that the Sanitarium Kindergarten, under the charge of Miss Margaret White, will open for the summer session on the 20th of this month. Miss White has well proven her ability to manage such a school in the most satisfactory manner. No pains will be spared to interest, instruct and properly care for the little ones in this school.

The baccalaureate sermon before the graduating class of the American Medical Missionary College will be preached by the Rev. D. B. Coon in the Sanitarium chapel on next Sabbath forenoon. There will be special music. The graduation exercises will take place on the evening of the 14th, when the address will be given by Dr. David Paulson, of the Hinsdale Sanitarium.

News and Personals

Mr. O. D. Kinney, a frequent visitor at the Sanitarium, has returned to his home in Athens, Pa.

Miss Margaret Stewart has returned to the Sanitarium after spending several months in Porto Rico.

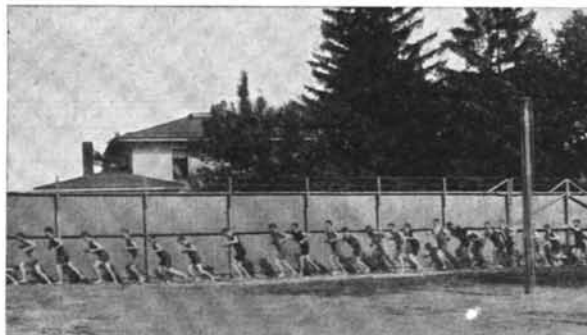
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MR. HORACE FLETCHER will give during the year a course of lectures on "Vital Economics." The next regular term begins April 5th.

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Self-Support Unusual opportunity is presented by the Sanitarium for earning money toward expenses.

Application for entrance for Summer and Fall Terms should be made this spring. An illustrated announcement containing further details will be sent upon request.

Address: WM. W. HASTINGS, Dean,

NORMAL SCHOOL OF PHYSICAL EDUCATION Battle Creek, Michigan

THE BATTLE CREEK IDEA

Vol. III No. 28

BATTLE CREEK, MICH., JUNE 17, 1910

Price 2 Cents

Sleep and Insomnia

Dr. W. H. Riley Describes the Phenomenon of Sleep and Points Out the Causes and Cure of Insomnia

SLEEP is a condition in which there are several changes in the functions of the nervous system; the most important change is a loss of consciousness; second, a loss of sen-

MEDICAL MISSIONARY ASSOCIATION'S WORK

Various Schools Conducted by the Above Association at the Sanitarium

THE educational work carried on at the Battle Creek Sanitarium is considered, and rightly so, no doubt, the most important feature of the enterprise. Even the patrons,

HOW TO LIVE A HUNDRED YEARS

Living for Efficiency—The Diet is an Important Factor in Vital Economy—Lecture by Doctor Kellogg

SOME thirty years ago, while I was in Wilmington, Delaware, I heard of a man who had lived 123 years. His birthday occurred about the time I was there, and I saw a no-



NURSES GRADUATED BY THE SANITARIUM TRAINING-SCHOOL, JUNE 2, 1910

sation; and third, an absence of muscular movement. There is a diminution of blood in the brain during sleep. And there is also a reduction of the processes that take place in the digestive tract, so that digestion is not carried on so well during sleep as when we are awake.

(Continued on page five)

coming for treatment and to obtain relief from their maladies, though they remain perhaps but a short time, doubtless obtain greater value in the information they gain while here than in the relief that comes to them in the cure of their diseases. Of course, relief is that which they seek and obtain, but in obtaining

(Continued on page three)

tice of it in a paper, so I set out to hunt him up. As I came near the place, a gentleman pointed out to me the house where he lived, and said, "There is the man himself"; and I saw a person sitting in a chair hanging on to a cane, doubled over, with a little, short, black pipe in his mouth; and you may imagine how disappointed I was. I had said

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UNIVERSITY OF MICHIGAN

to myself, "Here is a man who has lived 123 years, and it must be that he has lived very simply and been very temperate all his life," and to see this man smoking a pipe was very discouraging. I also found he had been in the habit of taking half a pint of whiskey every day for more than half a century, and that he had been a drinking man since he was a boy.

PRACTICALLY DEAD

I made further inquiry about this man, "What does he do?" The reply was, "Oh, he doesn't do anything." "Well, what has he been doing for the last twenty-five or thirty years?" "Nothing at all." "What does he know? Can you talk with him about anything?" "No, he doesn't know anything; he has forgotten everything he ever did know. He simply sits there and smokes all day long." So I discovered that this man was not really living, after all; he was practically dead. His friends had neglected to bury him. It is not worth while to live in that sort of way.

Sam Jones was once giving a lecture, and telling about the evils of whiskey and tobacco, and when he had nearly finished his speech a man interrupted him. He said, "I am Mr. Brown. I can not endorse what you say. You say whiskey and tobacco are bad for a man and shorten his life. Now I am eighty-six years of age. I have smoked ever since I was ten years old, and have been drinking whiskey ever since I was sixteen. How do you account for that?" Mr. Jones shouted out at him, "All that means is that you are uncommonly tough, and if you had not smoked and drank, then they would have had to kill you with an axe."

SOME PEOPLE ARE UNCOMMONLY TOUGH,

and they will live for a long time in spite of what they do; they can do almost anything, apparently, they have so much constitutional vigor and vitality, such a great reserve fund, and so much emergency margin, that they are able to live in spite of great infractions of the laws of life; but that is not true of the average man. The average man who drinks and smokes, dies sooner than the man who does not drink and smoke. The life insurance companies are finding out that it makes a difference of about ten years with a man's life whether he drinks or does not drink; and they are beginning to inquire, especially the life insurance companies of England, as I learned from a man of prominence in the East a few days ago, "Do you smoke? Do you eat a great deal of meat?" They are beginning to find that it pays to classify the risks; and if a man is a great meat eater, that is a point against him. If a man smokes to any considerable degree, that is a point against him, and he is not so good a risk.

The purpose I have in view is to give a brief outline of how people ought to live if they want to really live one hundred years and to be good for something at the end of that period. One of the chief considerations is eating right, eating for efficiency, for long life. What is the food that is best adapted to the long life, and best to promote long life? If you had an animal sent to you from some foreign part, a new bird or some other new creature such as you had never seen before, it would be very important to

that animal's welfare for you to have along with it directions for feeding. The very first question you would ask would be, "What shall I feed this animal?" Shall it be animal food? Shall it be raw vegetable food? Shall it be nuts? Shall it be fruits? There are different animals that in their natural state live upon all these classes of foods.

Suppose you should find that it is an animal that naturally lives upon fruits, and you should say, "Well, now, I haven't any bananas to give it; I will give it potatoes instead." Do you think that animal would thrive upon raw potatoes when bananas were its proper diet? I am sure you would all say it would not do very well on potatoes; it would not eat dried corn very well, either. You would not give it hay, or corn, or cabbage when its proper food was bananas. An animal whose natural diet is fruit can not possibly live on raw vegetables. A man might be in the forest where there is plenty of food—corn, potatoes, edible roots of all sorts, but no means of cooking them, and he could hardly survive for more than a short time. A man might find any quantity of leaves and grass and yet starve to death, because he is not an herbivorous animal. A dog would die under the same circumstances. A dog could not live on a diet of grass, leaves, twigs, stems, bark and roots, because the dog is no better adapted to a diet of that sort than is the man. What a man wants, then, is his natural diet.

WHAT IS A MAN'S NATURAL DIET?

To-day there is not a particle of question about what man's natural diet is, among scientific men. The thing has been so absolutely demonstrated that there is no question at all. Comparative anatomists and physiologists all recognize the fact that man's dietary, in the natural, primitive state, is the product of the earth in a raw state—fruits, nuts, and grains in the milk or the soft state. Those are the best foods; and if we were going to make a pyramid, with the best foods at the top, we would put fruits right at the top; next we would put nuts, and next we would put cereals. Then we would bring in cooked foods, including vegetables. Then would come milk. Then we would have possibly eggs; and down at the bottom, meats, for a man can live for a time on meats.

But that is not the way we find the ordinary bill of fare being made up at the present time. At the present time we find the pyramid turned upside down, meats at the top, and fruits down at the bottom; the pyramid is reversed. Now, let us see which foods are the best. First, are ripe, fresh fruits. They are most easily digestible and the best adapted to a man's needs. It is a little question whether, among civilized people, living as they ordinarily do, the fruits which are available would be a practical dietary. I hardly think so. But in South America it is easy to live on a fruit diet. There are plenty of people there who are living on bananas, oranges, figs, and other fruits that grow there. The Arab lives almost entirely on dried figs and dates, a little barley, or cooked cereals along with them. But next after ripe fresh fruits, come nuts, then cooked ripe fruits; and then cooked dried fruits. Then some cooked cereals, and

the best of all cooked cereals is rice, because it contains the smallest amount of residue requiring work of the kidneys and eliminative organs to deal with it. Then after rice come wheat and corn and barley and rice. Wheat, corn and barley are on a par. Rye is not as digestible as the others, or as wholesome a cereal. After these come peas and beans, perhaps; and then come sterilized milk, sterilized cream, and sterilized butter. Milk, cream, and butter if not sterilized, are the filthiest articles that come upon the table.

IT IS NECESSARY TO EAT SOME RAW FOOD.

Some should be eaten every day. It can be easily and most conveniently taken, perhaps, in the form of vegetable juices or ripe fruits. But some raw food must be taken. This point has not been appreciated until recent times. Within the last few years the great attention given to the diet of babies has brought out the interesting fact that a human being can not live more than eight or ten days on a strictly cooked dietary without suffering injury; and if this diet continues for a long time in babies it produces scurvy and rickets. It is now known that the cause of scurvy among sailors is not salt altogether; it is partly salt, but it is principally the lack of raw food. There is something in the raw food which has disappeared in the cooked food. What that something is, is not thoroughly known as yet. It is surmised that it is enzymes, certain ferments, catalytic substances which are found in the juices of raw foods and are not found in cooked foods, because they are digested in cooking. So European authorities on feeding infants take pains to specify that when a child is fed on cooked food for more than ten days, lemon juice must be added. If this lemon juice were cooked, it would not do any good, of course. Sailors suffering from scurvy are much benefited by lime juice.

This fact has given rise to

THE RAW FOOD FAD,

and it is built on the truth that there is in the raw food theory. There is no advantage in eating raw oatmeal, raw wheat, raw corn, raw oats or raw potatoes, and such stuff; there is a great disadvantage in that. There is a little advantage from the rawness of the food; but if you take raw wheat and soak it over night in the water, strain off the water, then you can let the cows or sheep have the wheat or the corn, for you have all the good there is in it for you. The human stomach is not adapted to digesting raw starches. In experiments in our laboratory here, we find that when a greater quantity than half an ounce of raw starch is taken into the stomach, it can be recovered in the bowel discharges. It is found there undigested, and it really makes more or less disturbance. It is necessary that starch should be cooked in order that it be thoroughly digested in the alimentary canal.

A SUBTLE ELEMENT IN RAW FOOD

But there is something in the raw food that confers a benefit—some subtle element that is found there, which can be extracted in the juices. That is the reason why there is sometimes such a craving for green food, especially in the spring, when the food has been largely cooked food. In the spring-time there is a craving for celery, lettuce, and things of that sort. It is an instinctive de-

mand for the things which these substances contain. Now, instead of waiting all winter, or until spring-time comes when you feel miserable and wretched, a little raw food should be taken every day. With an invalid, a considerable amount may be taken with advantage, because it furnishes stimulus to the nutritive processes which seem to be especially required by the invalid.

We have spoken of the best foods, but a word further with reference to certain

FOODS THAT OUGHT TO BE AVOIDED

altogether, what we might call poison foods. There are certain foods which contain elements which are distinct and active poisons. Tea, coffee, alcohol, tobacco,—we can not call a thing food that is a poison even though it is taken so often in connection with the meal that it seems to belong with it. Coffee, tea, cocoa and chocolate contain caffeine, thein, or theobromin,—a substance closely allied to uric acid. They are practically the same thing as uric acid. They are compounds of the same radical as is uric acid. Xanthin substances they are called, compounds of the nucleic bodies which are poisons to the human economy. They are a product of cell action; hence are a waste substance, and are a poison to the body. These poison foods should all be discarded. I said alcohol with the rest. Some of you are surprised, because it has been a popular notion for a long time that alcohol is a food. Alcohol is a by-product of the action of certain organisms known as yeasts, which in their growth produce a waste product, an excretion which is alcohol. Just as bacteria produce other kinds of poisons, so the yeast simply produces alcohol as a waste product of the cell growth. Alcohol can not be shown to be a food. It is true that when taken into the body it is oxidized, but that is true of almost every organic substance when taken into the body. Opium is oxidized, and strychnia is oxidized; nearly all these substances are oxidized; nevertheless, they are not foods.

WHAT IS FOOD?

A food is a substance which can be taken into the body and incorporated into it, and become a part of it. The food we eat to-day is walking around and talking to-morrow. And if substances are taken into the body which can not be made actually to walk and to talk, they are not foods. The acumen of the brain and the action of the brain are less after taking alcohol than before. The real vigor of a nerve or muscle, and the stamina after taking alcohol are less than before. The temperature of the body is less after taking alcohol than before; so it adds nothing to the energies of the body, and hence is not a food. These poison foods must all be discarded. The food of civilized man living under ordinary conditions encourages the growth of abnormal organisms within his body, of weeds, we may say, which take possession of the alimentary canal and grow there,—poison-forming organisms. These organisms that make mischief get into the alimentary canal and grow there, become fixed in the intestines, and even in the liver, setting up inflammation and producing abscesses there; they sometimes get into the gall-bladder, making gall-stones; they get down into the colon and produce colitis; get

down into the small intestine and produce enteritis; get into the appendix and produce appendicitis; they spread throughout the body and produce discolorations of the skin, produce pimples upon the skin, eczema, and a great variety of skin disorders,—these poisons produced in the body are the result of the action of germs; and these germs are invaders; they are products of growth that do not belong in the body; they are weeds, we may say, in the flower-garden of the body. These substances must be opposed and combated.

In this day and age of such wonderful opportunity, it is our desire more than ever to prolong our lives and to make them capable of the highest efficiency while we do live. A rational policy should lead us all to consider the questions of diet and hygienic habits to such an extent that we will reserve for ourselves many years, well spent, in this great twentieth century.

general, and their own cases in particular, there is an ever-increasing army of people who are intelligent, active agents in the great work of health reform so much needed in the world at the present day.

In addition to the work of education of the patients that is going on year after year, day after day, ceaselessly, various schools have been established, and are carried on by the American Medical Missionary Association, having as their ultimate aim and object the enlightenment of the people and the propagation of the gospel of health to all the world.

The oldest of these schools is the Sanitarium and Hospital Nurses' Training School, which receives two large classes of young men and women each year and graduates them after three years of careful instruction and training for the women, two years for the men. The requisites for admission into this school are sound health, Christian char-



CLASS IN DOMESTIC SCIENCE, GRADUATED MAY 31, 1910

MEDICAL MISSIONARY WORK

(Continued from page one)

it they also gain an intelligent knowledge of the nature of their troubles, of the causes which have induced them, and of the measures which have brought them relief, and which will enable them to avoid these troubles in the future. This knowledge they can use not only for themselves, but also for the benefit of their families and friends. Hence, every pains is taken to make the patient familiar with his own case, as to causes, cure, and prevention.

AN ARMY OF HEALTH EVANGELISTS

With the hundreds and thousands of people who thus go out from this place, with a practical knowledge of health principles in

acter and motives, natural intelligence, and a good literary preparation. This school has now been in operation for over twenty-five years and is recognized as in every way thorough and up to the times. In addition to the training usually given in hospitals, the students of this school receive theoretical and practical knowledge of the principles and methods of physiological therapeutics, embracing hydrotherapy, electrotherapy, mechanotherapy, and other correlated forms of treatment.

The next school to be established, and which has just celebrated its twelfth annual commencement season, is

THE AMERICAN MEDICAL MISSIONARY COLLEGE,

The object of this school is intimated in the name it bears, which is the education and training of Christian physicians

(Continued on page four)

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The Battle Creek Idea

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VOL. III JUNE 17, 1910 No. 28

SHOULD THE GOVERNMENT PROMOTE PUBLIC HEALTH?

PUBLIC health is a national asset of the greatest value. This is no less true now than it was in the olden times when national prowess depended almost entirely upon the brawn and muscle of the nation's soldiers who fought with the spear, the sword and the bow. The Greeks in their heroic days, as well as the Romans, who for centuries held sway over the earth, encouraged the development of physical stamina on the part of men and women as much as the nations of to-day promote the construction of battleships and the improvement of firearms.

Not only in war does the nation depend upon the endurance and strength of its men, but in the onward march of modern progress and enterprise men of strong physique and vigorous powers are demanded as never before. In the more peaceful arts and industries the world is now engaged in a strife that calls upon every man and woman for the very best of which they are capable. And the nation which can put into the field of its multitudinous industries the greatest number of healthy, strong men, capable of doing and enduring the work and stress, is sure to be the leading nation in the great race that is now on.

It therefore behooves a nation to provide for the health and hygiene of its citizens. Those causes from which spring debility, disease and decay should be sought out and eliminated by the strong arm of the law. In moral matters it is necessary for the authorities to enact and enforce laws which prevent men with perverted natures from doing harm to themselves and others. It is not left for every man to be a law unto himself, and to deport himself as he may choose, unless he chooses to do the right. Some men do not value moral character in themselves or in others, nor do they respect the rights of others which are placed within their power.

So it is in matters of health, there are many people who through ignorance or in-

difference have no regard for their own health, nor the slightest interest in the way in which their carelessness may affect others. There prevails an ignorance and indifference in relation to the preservation of public and individual health that is little if any short of criminal in those upon whom the responsibility of this condition rests.

In view of these and many other facts relating to the situation in our fair land, it is surprising that there should be any lethargic hesitation in regard to measures looking to securing on the part of our general government a thorough and intelligent oversight in the matter of public health. It is still more surprising that there should be active and determined opposition to such a movement on the part of the government. But such is unfortunately the case; and this opposition arises from various causes.

In the first place, there is a very numerous class of men who are making capital of the sufferings of the people. The more there is of sickness and suffering, the greater their profits. This is an evil under the sun. There should be no temptation within the reach of covetous, unprincipled men to enrich themselves by preying upon invalids and making gain of their sufferings. Much might be said upon this point, but the mere contemplation of such a thing being possible is horrifying, and the extent to which it prevails is one of the greatest evils that could possibly exist. Naturally those who are engaged in such a ghouliah traffic would be violently opposed to any interference with their business on the part of the civil power.

There is also an irrational fear on the part of many people of what they regard as paternalism on the part of the government. Upon the appearance of any signs that measures may be taken to safeguard the innocent victims of designing men, to protect ignorant people from the consequences of their own erratic ways, to protect the public from the awful results of the universal disregard of the laws of public well-being, there is a huge cry raised in opposition to sumptuary legislation, a great outcry for personal liberty. But no man is at liberty to sow the seeds of disease or weakness and degeneracy all around him. If he has no regard for the welfare of those who have to live with him and are more or less dependent upon him, then let him be restrained and required to take a course that will not constitute him a menace to the community, a source of contamination, and an agent of death.

It is high time that our nation's authorities grappled earnestly and intelligently with the problem of preserving and promoting the health of its people.

MEDICAL MISSIONARY WORK

(Continued from page three)

for medical missionary work. There is no effort on the part of the management to procure for this College the attendance of a general class of students for ordinary medical practice. Only those who have missionary fields in view are welcome, and most of these are sent here by the various missionary boards, nearly all Christian denominations being represented by the students in attendance.

The spirit and influence of the school is distinctly religious and Christian, the missionary ideal being held up constantly before the pupils by the visits of many missionaries from all parts of the world who come to the Sanitarium for rest and treatment. But this missionary and Christian element does not imply any weakness or deficiency in the professional or technical part of the work required by the students, four years of earnest, strenuous study being required for a diploma. No pains have been spared to place this school in the very first rank of professional and scientific merit. The professors are men who are in actual contact with sickness and diseases of all sorts.

THE SCHOOL IS INCORPORATED IN CHICAGO and is recognized by both the Illinois and Michigan State Boards. Part of the work is done in Chicago, where the students are brought into connection with the great hospitals of that city under the tutelage of Chicago's most famous professors, members of the staffs of the great universities there. The result of this excellent training and education is seen in the examination records established by the graduates of this school, which compare favorably with those obtained by any other existing school.

The American Medical Missionary College enjoys the recognition of the American Association of Medical Colleges, of which it is a member, of medical authorities of this country and of Great Britain. It is the only school of its character in existence. It has had to meet a great deal of suspicion and opposition hitherto, but has been enabled so far to outride the storms, and to-day stands better and on higher ground than ever before. On account of some religious and denominational troubles a few years ago the school was deprived of a large number of its students. Consequently the graduating classes for this year and next are considerably smaller than usual.

Another school of which at least brief mention should be made is the

SCHOOL OF DOMESTIC SCIENCE AND HOUSEHOLD ECONOMY,

of which an advertisement appears elsewhere in this paper. The object of this school is to furnish housekeepers and home-makers, women who are competent to care for the physical welfare of the people in private or public capacity. Three courses are presented, one a short summer course in which hygienic cookery is a prominent feature. The one-year course is more extensive and goes into the matter of domestic hygiene,

food chemistry, cookery, elementary nursing, house sanitation and other kindred subjects. The two-year course is calculated to qualify teachers and lecturers for public work. This school has now graduated three classes and the work that it has in hand is one of very great importance to the world at large. The women who have already taken its instruction are doing good in various fields of usefulness.

THE NORMAL SCHOOL OF PHYSICAL EDUCATION under the leadership of Dr. Wm. W. Hastings, dean, has had two or three years of successful operation and is doing excellent work in training pupils, not only in physical and muscular development, but in a broad and intelligent education along physiologic lines, embracing the elementary principles of medication and therapeutics.

These two latter schools are open to students of both sexes who furnish evidence of sincere purposes and an attachment to the principles which are represented in the schools themselves.

This article should not close without our at least making mention of the

LITERARY PREPARATORY SCHOOL

under the charge of Prof. E. D. Kirby, M. A. The young employees of the Sanitarium have access to this school and are at all times encouraged to engage in study to at least some degree. Classes are adapted to the convenience of the workers and occur at times when they can attend, being largely in the afternoon and evening. In employing the young people, the Sanitarium gives preference to those who thus desire to improve the opportunities given them for the cultivation of their minds. This school goes on without intermission during the entire year, and carries the usual academic studies, with the necessary college classes required for entrance into the medical courses.

The commodious and beautiful college building and campus opposite the Sanitarium is convenient for the helpers of the institution to attend. The building is well equipped for carrying on these diversified courses of study and training, and contains besides class-rooms a good library and extensive laboratories for chemical and physiologic research.

SLEEP AND INSOMNIA

(Continued from page one)

The most important cause of sleep is the act of a certain center in the brain which we call the vasomotor center, by which it relaxes its hold upon the blood-vessels throughout the body, so that the blood recedes from the brain into the extremities. The irritability of the nervous system is reduced during sleep so that it does not respond so readily to various forms of stimulation, as light, sound; heat and cold. This diminution of the irritability of the nervous system favors sleep.

During the day there are accumulated in the body poisons that lessen the irritability of the nervous system and tend to produce sleep. The tiring of the attention tends to produce sleep; and a withdrawal of those stimuli—a sort of retreating from the natural forces that are round about us in the day—tends to induce sleep. Why we sleep better at night than in the day, is because there is not so much to stimulate us. These are the main preliminaries or causes of sleep.

INSOMNIA IS A CONDITION

of the body in which the individual suffers from too little, or imperfect sleep. It is well for us to understand at the outset that insomnia is not a disease; it is simply a symptom. It is a symptom of a great many different troubles. There are a great many different causes of insomnia, and we may say as a general statement that it is always an indication of ill health. There is something wrong with the body when one does not sleep well. In nervous exhaustion, or neurasthenia, insomnia is a very prominent symptom; it is a symptom that is very troublesome to the patient, and one that gives the physician a good deal of trouble also. There are certain individuals who seem to have inherited a disposition not to sleep; though many people think they do not sleep when they really do, for we are not conscious of sleep. We only know we have been asleep by the sensation of awaking, and this may be very slight. But, however that may be, there are cases where the individual has inherited this peculiar condition of insomnia. In a case I have in mind the patient said that his father before him did not sleep, and for several generations in the past his ancestors were poor sleepers; and we often find cases of that kind where the individual inherits a predisposition to insomnia.

OTHER CAUSES

And then in addition to nervous exhaustion there is quite a large list of functional disorders of the nervous system like hysteria and fatigue, which perhaps do not amount to nervous exhaustion, in which insomnia is quite a prominent symptom. The habits of the individual are frequent causes. A person who breaks up the habit of sleep by irregular hours of sleeping thus produces insomnia; an individual who retires at irregular hours, very soon will establish the condition of insomnia. Then there are several diseases or conditions, so-called gouty or rheumatic diathesis, where the individual

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has a predisposition to gout or to rheumatism, on account of poisons which tend to accumulate in the body—conditions of this kind are very apt to be associated with insomnia.

We find quite a large number of cases where the individual suffers with insomnia on account of disorders of the digestive tract—indigestion of various sorts. There are a great many kinds of indigestion, of course, but almost any form of indigestion may be the cause of insomnia. The eating of late suppers is a bad practice, for several reasons, and one reason is that it produces insomnia. The individual who eats a late supper goes to bed soon after, and the digestive process is carried on imperfectly. It produces

competency where the heart does not pump the blood around to the system, suffer more or less with insomnia.

Sometimes the blood-pressure may be above the normal, and with elderly people particularly, when the blood-vessels of the brain get hardened and the blood does not circulate so freely, one of the prominent symptoms is insomnia. As a matter of fact, old people do not sleep as well as people in middle life; the young child, the infant, sleeps sixteen hours or more out of twenty-four, and those in middle life require about eight or ten hours, eight hours at least; but old people get along very well with six hours and very often their sleep is broken. One reason why they do not sleep so well is be-

cause the circulation of the blood through the brain is not carried on so readily, because the blood-vessels in the brain are beginning to harden, and this prevents the free circulation of the blood through the brain. That is a sort of physiological condition. Of course,

THE WAY TO TAKE CARE OF THE BLOOD-VESSELS

is to take good care of the body, to eat proper and wholesome food, to avoid the intake of any poisons like alcohol or nicotine, or over-eating. I am sure that overeating is the cause of a great deal of trouble with the blood-vessels, particularly hardening of the blood-vessels. I might go over a long list of different diseases in which the individual suffers with insomnia. But the thing that most people are concerned with,

THE MOST TROUBLESOME FORM OF INSOMNIA, is the insomnia that is associated with nervous exhaustion and with digestive trouble.

There are quite a number of different things we can do to get rid of insomnia. A very important thing to do in treating this symptom is, first of all, to examine the patient carefully and find the cause, and having found the cause, to remove it.

There are a number of things in reference to the habits of the individual that will help him to get sleep. First of all, he should avoid taking into his body poisons of any kind, such as alcohol and tobacco, and tea and coffee, and certain drugs. Sometimes a physician prescribes a glass of beer for his patient who does not sleep, and the beer will put him to sleep. One glass of beer will perhaps do so the first time, and later he will have to take two glasses of beer; further along he will have to take three. By and by he gets to the place where the beer will not put him to sleep at all and he has to use something stronger. Alcoholic liquors will



THE AMERICAN MEDICAL MISSIONARY COLLEGE

insomnia in several different ways: First, the food in the stomach irritates the mucous membrane of the stomach and sets up what we call reflex activities of various kinds that disturb the nervous system. If something should irritate the skin in such a way as to disturb us and be painful, of course that would not be conducive to sleep; we would not sleep well under such treatment. And food in the stomach acts very much in the same way. Undigested food irritates the mucous membrane of the stomach, which communicates to the brain a lot of nerve currents that disturb repose and tend to keep us awake. Then again, if the food is not properly digested in the stomach, poisons are formed, and these poisons pass into the blood and are carried to the brain, where they cause irritation and keep us awake. So there are at least two reasons why we should not eat heartily before retiring.

INDIGESTION CONDUCTIVE TO INSOMNIA

Any form of indigestion, then, is conducive to insomnia. Constipation frequently acts in the same way. It is true of the chronic disorders of nearly every organ in the body that they may produce insomnia. Diseases of the heart, where the circulation of the blood is not properly carried through the brain, particularly cases of cardiac in-

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Sanitarium,

Battle Creek, Mich.

put a man to sleep very much the same way that chloroform or ether does; in fact, alcohol belongs to the same class of drugs as chloroform and ether. Alcohol acts in the same way as the chloroform and ether, only it does not act quite so powerfully as they do, and yet it benumbs the nerves and destroys the senses.

ALCOHOL PRODUCES INSOMNIA

Of course it does a lot of other things, but this is one of the things that alcohol does to the body. The man continues to use these alcoholic liquors until the blood-vessels in his brain finally become paralyzed and dilated and he has a passive congestion of the brain, the blood is sluggish and does not flow out readily, and so he does not sleep. A very important thing to do in a case of that kind is to take the alcohol away.

Tobacco does much harm to the body, and one of the things that it does is to produce insomnia; and I am stating this specifically as one of the things that tobacco does—it produces insomnia. The man who smokes is frequently thin in flesh, his digestion is disturbed, he has a tremor in his hand, especially if he smokes excessively. You have all

(Continued next week)

ARRIVALS

FOLLOWING is the list of arrivals at the Battle Creek Sanitarium for the week ending June 12: Wilbur F. Crafts, Washington, D. C.; L. A. Snow, Okla.; Mrs. L. A. Malone and Miss K. Malone, Tex.; J. H. McLane, Chicago; Wm. W. Leigh, Ark.; M. A. Garrett, Wyo.; Emily M. Ely and friend, Mich.; Grace H. Knopp, Mary A. C. Ely, Turkey; Geo. M. Harrison, Mich.; Wm. Clancy, Miss.; Ellen Ragsdale, Colo.; R. F. Williams, J. H. Gerhart, Tenn.; Merriette Kellogg, Texas; E. F. Lane and wife, Mich.; N. McKee, N. Dak.; Edw. W. Stiffle, W. Va.; L. Quigley, New York City; Mrs. C. H. George, Mich.; John F. Dickson and wife, and Miss Dickson, Tex.; A. S. Davis, Chicago; F. H. Bernard, Mo.; W. P. Moody, Ala.; C. T. Haisig, Tex.; Mrs. M. S. Mason, Chicago; Francis Keiduff, Ill.; Louis Shuter and family, La.; Louis Shultz and Mrs. Shultz, O.; E. E. Hale and J. F. Coerell, O.; Mrs. R. J. Brennan and child, Detroit; Ella Martin, Ind.; Mr. and Mrs. R. C. Pryor, Mich.; Wade S. Dent, New York City; Chas. Glonville and Maud Glonville, Wis.; W. H. Drumm and Mrs. Frank Bechtel, Ia.; F. W. Mitchell and wife, Ky.; J. B. McCord, M. D., Ia.; A. E. LeRoy, N. Y.; Mrs. J. W. Sutton, Mich.; Fred B. Bolbert, Ia.; Miss Ruth Averett and Miss R. Reynolds, Ga.; Mr. and Mrs. H. B. Honson and son, Okla.; Mr. and Mrs. N. E. Mittenenthal and children, Tex.; J. H. Miller, M. D., Okla.; Mrs. E. P. Miller, Okla.; Mary Edwards, Ill.; Edmont P. Haines, Jr., N. J.; T. W. Snyder, Tex.; D. E. Matthews, W. Va.; C. B. Rowlingson, Syracuse; H. B. Plumb and family, City; J. C. Richardson, Ill.; J. S. Taylor, Ky.; A. J. Devoe, Minn.; Dr. J. H. Rogers, O.; Mrs. John S. Weaver, O.; J. H. C. Wulbern, Miss Harriet A. Wulbern and Miss Elsie Wulbern, S. C.; G. B. Goff, Mich.; D. A.

Tillotson, Ind.; Mrs. E. L. Perrin and Miss Mary Tillotson, Mich.; Mrs. D. B. Viley, Ky.; E. W. Merrill, wife and daughter, N. Y.; Grace B. Griffith, O.; Bona Allen and wife, and H. W. Allen, wife and baby, Ga.; Mrs. Aug. Anderson, Ill.; Mrs. S. A. Pace, Ind.; J. T. Motry and S. Motry, Pa.; Mrs. S. P. Bush, Jim Bush, O.; John Westley and C. H. Ritter, Pa.; E. W. Dollman, Mich.; Chas. Glenville and Maud Glenville, Wis.; Lelah Muellor, Ill.; Mrs. J. G. Diesend, Cuba; R. C. Stirton, Ia.; Joseph Sobel and wife, Chicago; N. R. Weaver and wife, Pa.; W. M. Bowman, Ky.; Mrs. C. H. L. Allen, Detroit; W. B. Carpenter, Cincinnati; B. E. Taylor, O.; E. H. Frichiting, O.; R. C. Pierce, New York City; Angus Carpenter, Miss.; Mrs. H. E. Sala, Mich.; Mrs. M. E. Kleckner, Chicago; Dr. W. P. Gerrill, Mo.;

Dr. E. A. Cox, J. R. Walker and Miss M. Walker, N. J.; Miss Jessie I. Peters and Julia I. Kipp, India; N. H. Gill, Indianapolis; C. B. Horner, O.; J. S. Allen and wife, Neb.; E. W. Allis, wife and two children, Milwaukee; C. H. Bradford and Mrs. C. H. Bradford, Ia.; Grace L. Rollman, Japan; Mrs. W. S. Vaughn, City; J. E. Marshall, Pa.; W. S. Judson, Cleveland; Joseph Com, New York City; Mabel L. Cranfill, Tex.; Ben Williams and D. S. Williams, M. D., Ark.; W. D. Smith, Jr., Miss E. Smith, Mich.; Mrs. A. P. Gillmore and Miss Isabel, Chicago; Mrs. W. E. Pinekney, Chicago; J. F. Jones, Tex.; J. P. Barr, Canada; James F. Wilson, Wis.; S. L. Gibbs and wife, Ky.; Moyer Lipstutz, Chicago; Mrs. D. K. Neyick, Mo.; R. E. Hart, Mich.; Mrs. Nettie Pine, Ia.; G. S. Kauffman and Dwight



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News and Personals

We are all pleased to have with us once more Dr. Carrie Staines, an honored member of the Sanitarium medical staff, who has been taking an extended vacation.

Dr. Harry B. Knapp and wife, of Porto Rico, are visiting Mrs. Knapp's parents, Dr. and Mrs. Kellogg, and many other friends around the Sanitarium. Doctor Knapp has an extensive practice on the sugar plantations under the charge of Mr. Grief, a former patient of the Sanitarium. During his vacation his place is being supplied by Dr. Elmer F. Otis, of the Sanitarium staff.

Dr. J. B. McCord, a medical missionary under the American Board in Natal, is a guest at the Sanitarium for a few days. Dr. McCord was with us during the Medical Missionary Conference last winter and is a welcome guest at this time. Dr. McCord brings with him an associate worker from South Africa, Rev. A. E. LeRoy, who will necessarily remain some time for treatment.

Rev. T. W. Mitchell, an evangelistic missionary from Hunan, China, spoke to the Sanitarium family recently on the "Causes and Incidents of the Recent Uprising of the Chinese." Mr. Mitchell is from the scene of these troubles and gave to his audience a most interesting and instructive account of not only the present troubles, but of the causes which underlie the unrest and dissatisfaction of China's millions. These outbreaks are the natural results of the great forces which are at work revolutionizing China. It is not to be expected that the awakening and arousing of this large empire, accompanied as it will be by revolutionizing hoary customs and usages, will be accomplished without demonstrations of dissatisfaction and outbreaks of trouble. These are the natural accompaniments of the measures of reform.

The Commencement exercises of the American Medical Missionary College took place in the Sanitarium gymnasium on the evening of June 14, according to appointment. The hall was appropriately decorated and a large congregation was in attendance. The principal address was delivered by Dr. David Paulson on the topic, "The Inspiration of Consecrated Lives." Diplomas were presented by the president of the College, Dr. J. H. Kellogg, with appropriate remarks. Music by the Sanitarium orchestra, under

the leadership of Mr. Wm. Drever. In every respect the exercises passed off most satisfactorily. The class numbers eight, whose names are as follows: Roman T. Adair, Alberto G. Garcia, Wm. E. Grey, Joseph John, Guy E. McFarland, Benn E. Nicola, Alexander Potchineov, Arthur R. Smeek, and Alvin J. Wood.

The Battle Creek Chautauqua is set this year for July 15 to 24. The grounds will be the same as used for the last two years, the Sanitarium villa and surroundings on the banks of Lake Goguae. The committee having the matter in charge have succeeded in arranging a very fine program for the present season. The list of speakers includes the well-known names of W. J. Bryan, of Nebraska; Gov. R. B. Glenn, of North Carolina; Hon. Jas. E. Watson, member of Congress from Indiana; Father Cleary; and A. R. Dugmore, the kodak hunter, who has recently visited the same territory in East Africa in which Roosevelt did his shooting. Mr. Dugmore, however, is a lover and not a killer of animals. The price of the season tickets will be held at \$2.00 until July 1, after which the price will be \$2.50. Tickets may be obtained at the Business Men's Association, in the Post Building, and all our citizens should rally to the support of this most worthy enterprise.

Rev. D. B. Coon, pastor of the Seventh-day Baptist church of this city, delivered the baccalaureate address before the graduating class of the American Medical Missionary College on Sabbath forenoon. He chose as his theme "Character Building," using the Saviour's illustration in the closing words of the Sermon on the Mount, concerning the two men who built houses, one of which was

founded on the rock and the other on the drifting sand. The building of the character was illustrated by the building of houses, some of which are constructed in simple form of materials gathered near at hand, and others elaborately built of materials from the farthest parts of the earth. Great pains are generally taken with the superstructure, but more important than this is the work which lies out of sight in the foundation. Many a noble looking building has come to ruin because it was not founded upon a rock; and thus it is in the building of the human character. The discourse was an instructive one and the service in every way pleasant and profitable.

On account of N. E. A. Convention at Boston, the Grand Trunk Railway System will operate a special train of standard coaches and sleepers and tourist sleepers through to Boston via Montreal on June 30th. But one night out. Secure reservation early, of

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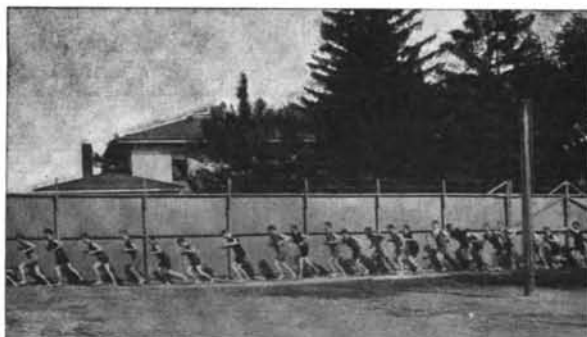
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THE BATTLE CREEK IDEA

Vol. III No. 29

BATTLE CREEK, MICH., JUNE 24, 1910

Price 2 Cents



Sleep and Insomnia

Dr. W. H. Riley Describes the Phenomenon of Sleep and Points Out the Causes and Cure of Insomnia

(Continued from last week)

heard of the tobacco heart, a condition very often seen in the young man when the heart ought to be strong and healthy; and then there is general nervousness and mental irri-

(Continued on page three)

Summer at the Sanitarium

How the Vacation Season is Spent at the Great Health Resort—Inducement to Health and Rest Seekers

THE question where to spend the summer vacation is one that is becoming more universal in our society circles, not only among the people of leisure and wealth, but in pro-

(Continued on page three)

In League with Nature

The Sanitarium System is Allied to Nature and Depends on Natural Measures
—Lecture by Dr. J. H. Kellogg

THIRTY-FOUR years ago there stood upon this spot a small, two-story wooden building. It was a farmhouse which had been converted into a water-cure by putting on an addition in which there were a few bath-tubs



THE MAIN PARLOR, BATTLE CREEK SANITARIUM

and a big tank. That was the Battle Creek Sanitarium at the beginning. Ten years before that time work had been begun in this farmhouse in the treatment of the sick by means of water and the applications of certain dietetic rules, but without very much science. The water was applied after crude methods, without any systematic regulation, for there were no scientific physicians connected with the place. Nevertheless, a great many people got well. The change of diet from an infectious and disease-producing diet to a simple, natural dietary worked great results. That thing alone was sufficient to accomplish a cure in quite a good many cases. The application of water, hot and cold, also effected cures in many cases, because in many instances all the patient needed was relief of pain somewhere with an improved circulation of the blood in some way; so these very simple measures, unscientific as they were, empirical as they were, resulted in such a number of cures that a considerable number of people came.

Since that time we have gradually built up a system, not by new discovery, for there have been no great discoveries made here, but by organization, by bringing together all known methods and measures of treatment which are effective in a natural way, which work in harmony with natural principles.

THE FIRST FOUNDATION PRINCIPLE

of the Battle Creek Sanitarium System is that Nature cures. A great scientist, Diétl, the famous pupil of the great Rokitanski, said, "Nature creates and maintains, therefore she must be able to heal." That is a reasonable proposition. "Nature creates and maintains." Suppose we have here a baby boy that weighs eight pounds. Twenty years later he will weigh 150 pounds. Nature will change him from an eight-pound boy to a large man. A creative process has gone on by which this boy has been enlarged. It is a creation as much as the first creation of the world, at the beginning of things. Every man is a creation; every living thing about us is a creation. Nature creates. It takes the same power to take care of a man after making him as it did to make him. It takes the very same power to keep a man alive as it did to make him alive in the first place; for we have no power to live automatically or independently. We live only by the continual pouring into us of a stream of life. Without that constantly incoming stream we should die, because we are expending life and energy every moment of our time. A candle that is continually burning will by and by burn out. The body is always burning; that is why we are warm; and this burning is a consumption, so there must be a continual pouring in of energy; and we get this energy from the forces of Nature; it comes to us from the food we eat, from the air we breathe, and the water we drink.

The same power that creates and maintains must be able to heal. That is the dictum of Diétl. Perhaps the greatest medical man who has lived within the last one hundred years was Virchow, of Berlin, the man who wrote that epoch-making book, "Cellular Pathology," which laid the foundation of all our modern science of histology and pathology. He said that

"DISEASE IS NOT AN ENTITY" that takes possession of the body; it is not a parasite which invades the body and fastens itself upon it. That was the old idea. Disease is simply an exhibition of the process by which Nature carries on the vital activities of the body under altered conditions. It is an abnormal behavior of the body because of the obstacles against which it has to labor.

Here is a man walking along the street, and he walks straight and steadily in a stately, dignified way. That man comes to a lot of obstructions. There has been an earthquake, perhaps, and the way is full of all sorts of ruins and furniture that have been tumbled into the street. That man can not walk in a dignified way over those obstructions. He has to pick his way, sometimes on all fours, clambering through this mass of obstruction. That is what Nature has to do when she labors under the difficulties that we impose upon her. The man who smokes is putting an obstacle in the way of Nature; the woman who drinks tea and coffee is putting an obstacle in the way of Nature; the man whose alimentary canal is filled with toxic germs, micro-organisms that manufacture poisons which are poured into his body, that overwork the liver and the kidneys, that fill the skin with poisons and coloring matters that infect the brain,—a man living in that condition can not behave naturally, he can not think straight; his brain is clouded and confused.

HIS STOMACH FOOLED HIM

I met a man some time ago who owned a great brewery, and I found him lamenting, "Oh, I am a fool, I am a fool." "Why, what is the matter?" I said. He replied, "I discharged my foreman the other day; I was angry and swore at him, and he quit as quick as that. I paid that man ten thousand dollars a year, and I could not get him back for twenty thousand. I was just a big fool." "What made you do it?" "Just simply because my stomach was out of order. There wasn't any sense in it. He hadn't done anything." Now, that is the difficulty. The physical machine goes wrong; the heart behaves badly, and everything is going wrong when the body has been put into a condition where the machinery can not work in an orderly way—and that is disease.

When we say Nature cures, we mean nothing more nor less than that God cures. There is only one Creator—the great Power behind all things; all intelligent men and women recognize that the Power beyond all created things is God. The scientist and the agnostic call it the Unknowable. Bunge defines it as the Thing that Exists in Itself; the Infinite, the Non-relative, and so on—a great number of terms are used. The scientist does not like to use the sacred word, so he fixes up some term to represent it; but it all means simply God.

WE MUST CO-OPERATE WITH THAT POWER, and the first thing to be done is to remove the causes. Doctors can not cure; medicines can not cure; baths can not cure. Why, think of putting creative power into a bottle, and putting a cork in it! You can not imagine that there is such a thing as a healing, creating power in a bath-tub. Bath-tubs never

heal anybody. A doctor can not cure a man any more than he can build a man out of clay. What are doctors for, then?—Doctors are only to lead the way; to help remove obstacles, and to show people how they have themselves been putting obstacles in the way.

So this institution has been working on that principle that there is a Power that heals as well as creates, and that that Power is working in the body and ready to heal every man that can be healed, provided he will get the obstacles out of the way; and the work of the doctor is simply to help the patient to remove the obstacles. Baths help; diet is the greatest of all helps, perhaps; outdoor exercise helps; a great variety of things help; but the one necessary thing is to remove obstacles.

HOW PATIENTS BEGIN AT THE SANITARIUM

In beginning the management of a case, the first thing to be done is to find out what is the matter with the patient. Some time ago I was examining a man, and I found something the matter with his lungs, and his heart, and his liver; and he said, "Well, Doctor, I guess you will have to put in a whole new set of works for me." That was a crude statement of the actual fact, and one that is generally true of the chronic invalid. The chronic invalid has something the matter everywhere. A lady said to me the other day, "Doctor, what do you think is the name of my disease?" I said, "There is only one name that will cover it. It is total depravity." I was obliged to tell her she was suffering from total physical depravity. The majority of people who come to the Sanitarium have never taken the trouble to have a thoroughgoing examination. They go to their doctor and say, "Doctor, give me a little something for my liver; you know what I want; I am in a hurry, and haven't time to stop this morning." So the doctor never gets a chance to look thoroughly into the case. Business is always pressing; social duties are calling, so the patient has often never had a real, thorough examination.

WHEN A PATIENT ARRIVES

at the Sanitarium he is first introduced to the medical office. The patient is asked a few general questions so as to ascertain something about the nature of his case. Our various departments and the general program of the institution are explained to him. Some printed information is put into his hands, and he is given some general treatment, and shown his room and place at the table, where the menu is explained to him. The next day he comes back, has a little bit of blood taken from the tip of the finger; and that blood is examined, first with reference to the coloring matter. The state of the coloring matter gives an idea of the quality of the blood. A little portion of this blood is carefully counted; the number of blood-cells in a cubic millimeter are counted. A cubic millimeter is the cubic twenty-fifth part of an inch. The number of red cells is counted, the number of white cells is counted, and the amount of coloring matter in proportion to the number of cells is given, so that the quality of the blood may be determined. If there is any suspicion of infection of any sort, some portion of the blood is taken by the bacteriologist and a culture is made so as

to determine whether there are any bacteria there, and if so, of what sort. Also the blood-pressure is determined. This examination is made in the laboratory by expert analysts.

LABORATORY RESEARCHES

In the laboratory various researches are made. Specimens of saliva from patients are put in the large incubator to grow overnight; then they are examined to see what they look like. Their form of growing tells what they are. A wonderful property of these germs is that the different kinds of germs absorb different kinds of coloring matter. Some of them take the coloring matters and hold them, and others give the coloring matters up very easily, so they can be washed out again with acids or alkalis; so the different kinds of germs can be distinguished very largely by the coloring matters which they absorb.

The laboratory also examines the stomach by means of test-meals, usually a test breakfast. It is subjected to a great variety of tests. It takes from three to five hours to examine a single specimen. But several are carried along together, and in that way time is economized. Each specimen is subjected to the most careful assay, just as a bit of ore is assayed to ascertain the amount of metal in it, and the final result is recorded; there is a record made of the actual acidity, the calculated acidity, the amount of free hydrochloric acid, the acid which is combined with albumin, the neutral chlorin, the sugar that is present, and the coefficients of protein digestion, carbohydrate digestion, etc.

The Battle Creek Sanitarium System aims at thoroughness, and from this standpoint it strives to obtain an accurate knowledge of the condition of the patient by the use of every means that science affords, and thus enable those coming under its care to have every chance of a rapid recovery and the preservation of good health after being cured.

SUMMER AT THE SANITARIUM

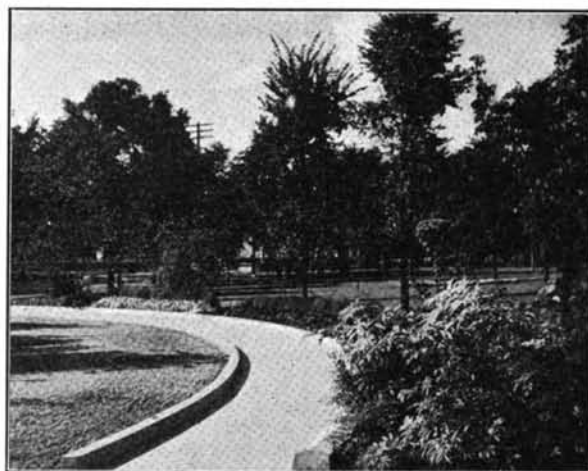
(Continued from page one)

fessional circles, and among wage-earners as well. The custom of taking a period of rest during the heated weeks is a very common one, and a very commendable one, especially among a people of constant activity as the Americans are. The human machine would quickly wear out and break down if it were not given some opportunity for recuperation.

PLEASURE RESORTS GALORE

Throughout our country, by the seashore and lakeside, on mountains and in the woods, are innumerable places devoted to the use of those who are seeking for pleasure and relaxation. These are usually places where wealthy pleasure seekers resort, and every provision is made for the amusement and diversion of those who patronize these resorts and are willing to pay the prices asked for their entertainment and amusement. And at such places the whole amusement world is ransacked to obtain means for keeping away the slight attacks of ennui that are sufficient to drive away the throng of guests who simply wander about hunting for somebody or something to amuse them.

Let it be understood, then, that the Battle Creek Sanitarium is not in competition with that class of resorts. It does not bid for that class of patrons. It has no time nor tastes for people who are simply living to be amused. This institution is in existence because the sick and suffering in the sick and weary world, need its ministrations. It is, therefore, not a pleasure resort, and has never so advertised itself. It holds out no inducement to the mere pleasure-seeker. To be sure, it does not shut out any one who wishes to enjoy its advantages, even though he may not be so sick as to require immediate attention. But its distinct mission is to supply a retreat for those who are ill, for those who are worn with labor and need rest, and as a university of health for those who desire to become better acquainted with life in its practical aspects. Hundreds and thousands of people are awakening to the necessity of a better knowledge of the conditions of good living, and they have learned that the Battle Creek Sanitarium is the place where they can obtain that knowledge in a usable form.



ON THE FRONT LAWN

PEOPLE WITH A PURPOSE

Consequently, we have here always a large class of thoughtful and intelligent people who are here to obtain the benefits of the treatments, and to learn of the principles that make for good, sound health and happy living. There are also always in our large family many professional people, who, needing a period of rest, prefer to go to a place where in a pleasing and restful way they can obtain a new supply of nerve force and energy and at the same time become better acquainted with the methods and principles which the science of these days is revealing as the best way for the preservation of health and efficiency.

There is, of course, a large percentage of patrons who come here because of their physical condition, having tried every means within reach at their homes, and perhaps after traveling from place to place have at last discovered that this is the place for them to go for relief. Probably three-fourths of the sick people who come to this place are recommended to do so by their home doctors, who recognize the fact that the institution possesses facilities which are not available in

private practice, and who perceive that all that is done here is in strict accordance with the best there is in medical practice.

RELIGIOUS LIFE

Not a few are attracted to the Sanitarium because of the quiet Christian atmosphere which characterizes the place. The religious exercises are accessible to all without being made offensive or obtrusive to any. Each day is opened with the voice of song, the reading of the Scriptures, and prayer; though none are required to attend these exercises, many choose to do so, and find comfort and help in it.

The patronage of the Sanitarium is very large during the summer months; but special efforts are put forth to accommodate all who desire to come. The limit of our capacity, one thousand guests, is often reached in the later summer weeks. It will be well for those coming during the next few weeks to give the management as much notice as possible before coming, especially if particular accommodations are required.

SLEEP AND INSOMNIA

(Continued from page one)

stability. And sometimes tobacco causes blindness by producing a degeneration of the optic nerve. The nicotine in tobacco is a poison to the tissues of the body, particularly the brain tissues, which are exceedingly delicate, and yet they seem to have the power of resisting a great deal of abuse. There is nothing in the world so delicate and sensitive as a nerve cell, and nerve tissue; and in order for the nerve cell to do its work properly it must have food and should not have any poisons brought into contact with it. When a man smokes a cigar, the nicotine goes into his blood, is carried by the blood to the brain, and there comes in contact with the nerve cell, and irritates that cell, interfering with its work. The same is true of any poison, including alcohol, and a great many drugs and poisons which do the same thing.

TEA AND COFFEE CAUSE INSOMNIA

Tea and coffee, particularly coffee, also cause insomnia. Very often one using cof-

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DESTROYED FOR LACK OF KNOWLEDGE

PEOPLE do not know how to live. The science of living and the art of self-preservation are subjects upon which the people generally are deeply and lamentably ignorant. The worst feature of the case is that they are terribly indifferent in regard to the rules which regulate their health, not that the sources of knowledge are denied them, nor that the subject of health is complex or obscure; but the situation is rather due to the course into which human existence drifted centuries ago, and which has now become worn into a deep rut. The care of the sick was long ago relegated to a profession, and those who were most deeply interested permitted themselves to fall into the most complete indifference and ignorance in regard to it. When the average man is well and vigorous he sees not the need to bother himself about disease. It may be a long time before he is sick, and then he does not know from what direction the illness may come, or in what form it may overtake him; and besides, there is the doctor who keeps posted in such things, and when it does come he will simply call the doctor, say, "I am sick, give me something to take," and all will be well. Why should he take the time and the trouble to study up those things in which even doctors do not always agree? Is not the doctor paid for doing it? He knows, or if he does not, how could I know?

He therefore blunders along in a heedless manner, escaping some of the pitfalls that beset his feet, falling into some, and being mercifully delivered by a good Providence that watches over him. But gradually he is undermining his house, and by and by it falls. Perhaps it comes down suddenly without warning; it may be that it will begin to totter and waver with warning signs of that which is surely coming. The doctor is consulted, and he does the best he can. Perhaps for a time matters are compromised and a new lease is given or an extension of the mortgage is granted, but sooner or later the

reckoning time comes when the man is brought face to face with his record. He comes to a place where his ignorance of his physical needs assumes a fatal aspect. Had he only known! Had he avoided those ways of death, it might have been different.

Perhaps it is not yet too late, for fate with God behind it is very lenient. There is forgiveness for him who is willing to turn from his transgressions. There is mercy and grace for the physical sinner as well as for the moral wanderer. And even at the eleventh hour there may come to the weary and sick traveler a postponement of the days of retribution. He may in a measure redeem the past, and the healing power within him may repair that which was broken down and he again tread the paths of usefulness.

But how much better it would be if people would only see the importance of becoming intelligent in the preservation of health. The time to cure disease is before it comes. The best remedy is prevention. The best way to get well is to keep well. The most effective way to preserve and lengthen life is to care for it while we have it.

It is with such a conception as this that the Battle Creek Sanitarium undertakes its work, seeking most of all to enlighten and interest the people in the great subjects that pertain so closely to their welfare and happiness, and to enable them to see the dangers which lie along the ordinary ways of living into which so many unwittingly fall. The young man or woman who is burning the candle at both ends, who has not yet learned to appreciate the value of these vital considerations, may smile now, but the time will surely come when the little flickering flame of life will be most carefully guarded. Why wait until the best of life is spent? Why not join the Health and Efficiency League of America at once and go in for a long and efficient life made possible by right living?

SLEEP AND INSOMNIA

(Continued from page three)

fee for a long time can take a cup without disturbing his sleep; but let a person not accustomed to it take half a cup of ordinary coffee before retiring in the evening, and he will not sleep well. Anything that does that to a healthy individual certainly does harm to an invalid; and while tea and coffee can not be put down as absolute poisons, yet they contain substances that are not wholesome to the body.

Any one who has indigestion of any kind should have attention, the diet should be regulated by a physician so as to overcome the indigestion. It is also important to take care of the bowels. The work of Metchnikoff in Paris, the successor of Pasteur; and Combe in Switzerland; and in our own country, Doctor Herter in New York, and several others, has proven quite conclusively that many people suffer with intestinal autointoxi-

cation, particularly those who eat a large amount of protein food, and this food increases decomposition in the alimentary canal, in the bowel, and poisons are formed. When sugar and starch are eaten they are oxidized in our bodies and the waste is carbonic acid gas, which is eliminated by the lungs. This waste is not very poisonous, but the waste of the protein food often is very poisonous. And the germs that thrive upon the protein food in the intestines develop certain toxins and alkaloidal substances that are sometimes very poisonous. These are absorbed into the blood and carried to the brain, and they cause insomnia. They also cause headache and a general feeling of indisposition. And so it is very necessary to regulate the diet and restrict the amount of protein that the individual takes into his body, so that he will not have an excess of nitrogenous substances upon which these germs may thrive. It is very important to look after that which causes insomnia instead of directing our attention to the insomnia and giving the patient some drug to make him sleep. It is one thing to treat a symptom and another thing to treat the disease. It does not require any great amount of skill or wisdom for a physician to relieve a pain. If he has some morphine, or something of that sort, it is easily done. But the important thing to do is to find the cause and get rid of that.

RELIEF MEASURES

There are a great many measures that may be taken to relieve insomnia. A very important thing to do, as a general proposition, is to improve the general health. The patient should live an out-of-door life as much as possible. People who live out of doors sleep better than those who live inside. The farmer sleeps sounder than the man who lives in his office.

And then there is the short cold bath taken in the morning. The cold water stimulates the body; it acts as a tonic. The cold is a nerve stimulant; it stimulates the nerves and increases the activity of the different organs of the body. In the summer, most people could take a cold bath two or three times a day with very excellent results, particularly the business man who sits day after day in his office and does not take time to exercise out of doors. If he would take a cold bath two or three times a day and sleep out of doors at night, he would be saving a lot of time, he could get his exercise in that way. The cold bath increases oxidation in his body more or less, stimulates the functions of the different organs of the body, and in a sense takes the place of exercise. I am not speaking of this to discourage exercise. But if for any reason one can not get it, the cold bath will help out and in a degree will take the place of exercise.

Then, one who suffers with insomnia, of course ought to sleep in a quiet room. Sleep is sounder and better where it is quiet. Sometimes people tell us they can sleep just as well by the side of an elevated railroad as anywhere else. I do not care to enter into a discussion of that question here, but people who sleep by the side of the elevated railroads are not really undergoing sound rest. They may be unconscious, but they are not

resting so well as if they were in a quiet place.

THE SLEEPING-ROOM SHOULD BE WELL VENTILATED.

One can not ventilate a room by simply having an opening on one side, unless it should be a very large opening. The best place to sleep is out of doors, and there is a lot of difference between sleeping out of doors and sleeping in a room with the windows open. The circulation of air is better, because there is much more oxygen out of doors than indoors, and I would advise all who can do so to sleep out of doors. But when sleeping indoors, do not shut yourself in a tight room, but keep the windows open. A strong person need not be afraid of drafts. One who is feeble and whose strength is not great, of course needs to be more careful. The best place to sleep is in the upper part of the house. Especially in the summer, the air is apt to be better in the upper than in the lower rooms. The bed should be firm, and should have a hard, smooth mattress. Soft mattresses and feather beds are not wholesome, and are not to be recommended. One should have sufficient clothing to keep the body warm, but a large amount of clothing is objectionable. There should be just enough to keep the body warm.

The temperature of the room is another important thing. Most people sleep with the room too warm. Of course, in the summer-time we can not regulate the temperature so well, for we can not make it lower than that of the air out of doors. The temperature of the sleeping-room should not be higher than sixty degrees, and for people in good health forty degrees or lower is very much better. For one who is very feeble, the temperature may be up to seventy degrees.

THE NEUTRAL BATH, at a temperature of from 92 to 96 degrees, is a very excellent thing to produce sleep. That temperature is adjusted to the temperature of the surface of the body. That is why it is called neutral—it is neither hot nor cold. The bath should be taken just before retiring, and the individual should remain in the bath about twenty minutes to half an hour, sometimes even longer. Some of our state institutions where the insane are treated have put in these neutral baths and they are used a great deal, and it is wonderful what effects they produce on nervous cases. The patients are quieted down, sleep is produced, and they are much more manageable in every way after being kept in this neutral bath. But for ordinary purposes the neutral bath taken for twenty minutes to half an hour is safer.

Another important thing is that one troubled with insomnia should not do any mental work in the latter part of the day or evening. He should keep in touch with things that are agreeable and pleasant and entertaining. Then we can use the hot blanket pack to the body, which may be given in bed. The warm blanket draws the blood to the surface; the head should be kept cold. Or, we can use the hip and leg pack, where the blanket is put around the hips and legs. This draws the blood down from the brain.

Another bath very often used with great efficiency is the cold wet sheet pack, taken with a linen or cotton sheet wrung out of water at a temperature of sixty degrees. Wrap the patient in it, and then put blankets around him, keeping his feet warm, and he soon goes to sleep. He gets there the benefit of the cold and the warm; first the cold brings the blood to the surface, and then there is a warm reaction. Sometimes a hot

foot bath or leg bath will produce sleep. Of course the habits of the individual need to be regulated.

There are a number of drugs used to produce sleep. We see the results of them here every day, people coming to us who have used drugs for months and years and still they do not sleep; and so, while it may be expedient to use these drugs in emergencies, they are not to be recommended for continued use; as a matter of fact, any drug that will put a man to sleep is bound to do him harm in some other way. I am sure that is recognized not only by ourselves but by all other men who have had experience. These drugs put people to sleep by lessening the irritability of the nerve tissue, and so they should not be used continuously, for the efficiency of the nerves is sure to be impaired. These simpler remedies, so-called physiologic methods, are more effective; and there are very few cases of insomnia that can not be relieved by their proper use.

WHAT IMAGINATION WILL DO

DR. CHARLES K. MILLS, of Philadelphia, told at a dinner an amusing story of the influence of the imagination on the health.

"A young bank clerk," he said, feeling fagged from the excessive heat of a trying summer, consulted a physician. The physician questioned him, sounded his lungs, and then said, gravely:

"I will write you to-morrow."

"The next day the bank clerk received a letter from the medical man telling him that his right lung was gone and his heart seriously deranged, and advising him to lose no time in putting his affairs in order.

"Of course," the doctor wrote, 'you may live for weeks, but you would do well to leave nothing important unsettled.'

"Naturally, the young bank clerk was very much depressed by this sad letter, nothing less than a death warrant. He did not, of course, go to work that morning, and before noon he was having trouble with his respiration, while severe pains shot rapidly through his heart. He did not get up all day, and on towards midnight he had a sinking spell that caused his people to send post-haste for the doctor.

"The doctor, on his arrival, was astounded.

"Why," he cried, 'there were no symptoms of this sort yesterday! What on earth have you been doing to yourself?'

"The patient's face screwed up with pain, he pressed his hand to his breast, and said, feebly:

"It's the heart, I suppose, doctor."

"The heart?" said the doctor; 'there was nothing yesterday the matter with your heart.'

"My lungs, then," the patient groaned.

"What ails you?" the doctor shouted. 'You don't seem to have been drinking.'

"Your letter, doctor—you told me I had only a few weeks to live."

"Nonsense! Are you crazy? I told you to take a month's vacation at the seaside and you'd be as good as new again."

"The patient drew the fateful letter from a drawer beside his bed.

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Three journals are published at the Battle Creek Sanitarium:

The Battle Creek Idea (Weekly)	\$1.00 per year
Good Health (Monthly)	1.50 " "
The Medical Missionary (Monthly)	.50 " "

These papers will be combined at the following prices:

Battle Creek Idea and Good Health	\$1.85 per year
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Good Health and Medical Missionary	1.35 " "
All three journals one year	2.10 " "

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"Well," said the doctor, glancing at it, 'this is a pretty mess. This letter was intended for another man. My secretary mixed up the envelopes.'

"The patient laughed. He sat up in bed. His recovery was rapid. That night, in fact, he was well again.

"And what," ended Mr. Mills—"what of the dying consumptive who had got this young man's letter? The consumptive, delighted with the prediction that a month at the seaside would make a sound man of him, packed his trunk and took the first train for New England. That was ten years ago, and to-day he is in fair health."—*Penna. R. R. Traveller.*

QUESTION BOX DEPARTMENT

EACH Monday evening Dr. Kellogg conducts a Question Box talk in the Sanitarium parlor, where all guests and patients are at liberty to submit questions relating to health and health topics.

Q. Is there any cure for intestinal inactivity?

A. Yes, nearly all cases are curable.

Q. What causes one to gnash the teeth while sleeping?

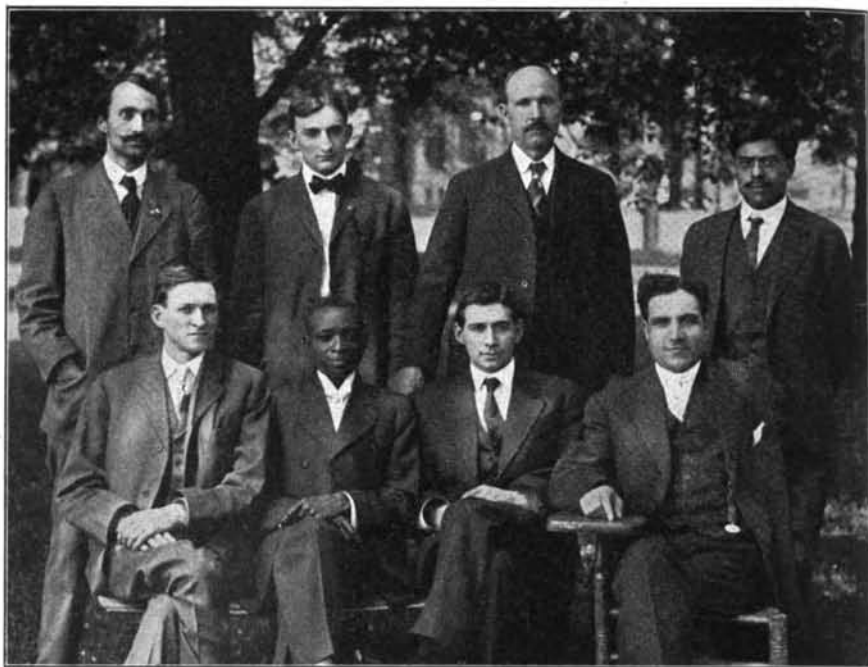
A. That is a sympathetic nerve disturbance. I do not think anybody has ever given us an answer that really explains it. When there is gastric irritation, there is likely to be that grinding of the teeth. It is one of the signs of indigestion.

Q. What will stop the hair from falling?

A. I wish I knew. I think the sedentary life is the thing that is mostly responsible for falling hair. I did not see a single bald-headed Porto Rican all the time I was down there. The people there have a prodigious growth of hair. Our baldness is due to our living an indoor and unnatural life.

Q. I have heard it said that beef-tea is especially good for one. Is this true? What is in it?

A. Well, Dr. Austin Flint, the great New York physician, more than thirty years ago, made an analysis of beef-tea. He had a great deal of practice in treating typhoid fever, and the universal practice was to give beef-tea to fever patients. He found they did not do very well, so he made a study of beef-tea, and he found that the analysis of beef-tea was almost exactly the same as that of urine. You find it mentioned in his work on medical practice; and he discarded beef-tea when he found what it was. Urine is simply extract of the tissues. The blood washes poisons out of these tissues, carries these poisons down to the kidneys, and the kidneys take these poisons out and eliminate them. When we want to know the state of a man's blood we find it out by examining the urine, because it is simply concentrated extract of blood. When an animal is alive, of course the pro-



GRADUATING CLASS, AMERICAN MEDICAL MISSIONARY COLLEGE

cess of washing and elimination is always going on; but when an animal is killed, the heart stops beating right away, but the tissues continue to quiver and jerk; so the formation of poisons goes on in the muscles for half an hour or more, sometimes for hours after the animal's throat has been cut or it has been knocked in the head, the poisons go on accumulating in the tissues. So when beef-tea is made from the tissues, it simply extracts the poisons from the tissues, just as the blood and the kidneys would have

done if the animal had lived. And people imagine that beef-tea is tonic and stimulating. It is one of the ridiculous, absurd notions that came into being away back in the Middle Ages somewhere. Two hundred years ago urine was used in exactly the same way that beef-tea is used to-day. It was prescribed by physicians, as I can show you by my library. Beef-tea is absolutely unwholesome, of no practical use whatever; and it is, as an eminent French doctor said a few years ago, "a veritable solution of poisons."

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This institution offers a three years' course of instruction for women and two years for men. In addition to the usual subjects taught in hospital training schools, special attention is given to all branches of physiologic therapeutics, including hydrotherapy, radiotherapy, phototherapy, kinesotherapy, or manual Swedish movements, and massage.

Among other special advantages offered are laboratory instruction in bacteriology and chemistry, the use of the microscope, urinary analysis, practical course in cookery and dietetics, medical gymnastics, swimming, anthropometry and open air methods.

Applicants received whenever vacancies. The next class will be organized the first of April, 1910. For full information address

Sanitarium,

Battle Creek, Mich.

ARRIVALS

THE following guests registered at the Battle Creek Sanitarium during the week ending June 19: D. A. Kline, Syracuse; C. B. Holbert, Ia.; Mrs. C. B. Western, Mich.; C. Duke, wife and two daughters, Ark.; Dr. Wilbur F. Crafts, Washington, D. C.; W. E. Aiken, New York City; S. H. Bowerman and wife, W. Va.; G. L. Baker and Mrs. A. B. Holbert, Ia.; Z. I. Crockett, Ark.; O. A. Ramsay, Neb.; Christina Weidner, Ill.; W. E. Wismer, Canada; L. W. Lolly, W. Va.; Fred Mengee and Mrs. J. Volber, Detroit; O. E. Robinson and wife, Calif.; Mrs. Geo. Bobbett, N. Y.; M. V. Dryden, Neb.; Emily May Ely, Mich.; J. D. Knopp, Tex.; Everett E. Sowers, Chicago; Chas. H. Clean, Mich.; R. W. Beall, Pa.; H. S. Penkert, O.; Mrs. W. I. Baueker and son, Dr. H. Kahn, Mrs. H. Kahn, and Dr. P. F. Haskell, Chicago; Fred G. Mower, N. H.; Mrs. M. Davis and Mrs. G. M. Kleder, Ind.; Anna Anderson, Ind.; Mrs. J. P. Kirkmon and Mrs. E. R. Richardson, Tenn.; David Paulson, M. D., and Mrs. C. L. Clough, Ill.; Edna C. Miller, Kans.; E. P. Southworth and wife, Mo.; Mrs. W. A. Wooding, Mrs. J. H. Futer, and Miss Martha Haggard, Ind.; Mr. Walter Carroll and wife and two children, Minneapolis; Dr. V. J. Willey, Minn.; Mr. and Mrs. J. Von Cise, N. Y.; A. E. Wood and wife, Ill.; Geo. W. Hilton, wife and child, China; P. A. McDiormid, Kongo; Mrs. E. R. Lewis, Okla.; Mrs. W. J. Henry, Ind.; Mrs. G. Roy, N. Y.; A. B. Minor, Neb.; Bruce S. Biddle, Ill.; D. L. Cunningham, Tex.; Elmer Hale, Okla.; Mrs. Joy Husrodt, Mrs. M. L. Tyler, and Mrs. O. L. Fonda, Mich.; C. E. Rawson, Des Moines; Miss Letha Elkerton, Mich.; Fred Clark, S. Dak.; C. D. Herdman and wife, Ky.; A. O. Anderson, N. Dak.; D. Purdon and H. B. Waldron, Ill.; G. H. Koder, Mich.; W. M. Danner, Boston; Mrs. M. J. Nelson and Miss Gusta Nelson, Ind.; B. F. Burtless, Mich.; Mrs. J. O. Ross and Mrs. P. R. Hudson and son, Tex.; Fred D. Bickford, Utah; Minnie M. Van Pelt, Colo.; Mr. and Mrs. W. H. Jones, O.; David Johnson, Mich.; Mrs. H. R. Hitchcock, Can.; Miss J. B. Menuz, Philadelphia; Mr. and Mrs. R. J. Neely, Ky.; E. L. Horney, O.; August Schnell, Brooklyn; A. L. Wayman, Chicago; J. F. Dickinson, N. Dak.; Mrs. C. S. Newman, Minn.; W. B. Parks, wife and child, and Miss Josephine Brondt, Miss; Gilbert Venum, Ill.; Horace Brown, Ky.; Cora H. Bissell, O.; Mrs. E. W. Howard, Ia.; W. O. Hopkins, Cincinnati; H. C. Williams, Grand Rapids; John Wornot and daughter, W. Va.; Maria Ware, W. Va.; Dr. R. S. Gatell, Porto Rico; Mrs. Horace Brown, Miss L. Helm, and Dr. J. S. Sweny, Ky.; Albert N. Merritt, Chicago; Geo. W. Dodge, La.; Mrs. E. V. Eastham, Ky.; W. D. Smith, Mich.; A. M. Clompit, Chicago; Laura Moore, Mich.; Henry Frudinger, Mich.; Gus D. Thomas, Ill.; G. L. Becker, Utah; Francis Kelduff, Ill.; Mrs. T. G. Bush, Ala.; C. O. Hones and Mrs. R. J. Hones, O.; J. O. Forleigh, Mo.; J. R. Hopkins, Ga.; G. M. Hudson and T. P. Bauer, Mich.; Mrs. W. P. McAdvery and Mrs. Lulu H. Baird, Ala.; R. N. Holsaple, Mich.; A. N. Sprunger, Ind.; G. H. Cole, Jr., Minn.; E. J. Schnorf, O.; Anna C. Young, Minneapolis; Esther B. Foster, Ill.; G. A.

Chilton, Tex.; Ethel Cummings, Mo.; A. H. Beardsley, Ind.; Mrs. T. H. McCarty, Can.; Theo. W. Cock, Mich.; R. H. Platt and Geo. W. Rightmire, O.; Wilder P. Ellis, Mont.; J. C. L. Ebr, Mich.; Mrs. M. F. Tomlinson and Mabel Tomlinson, O.; J. M. Barker, Ind.; Miss Ethel Biggerstoff, Mo.; W. H. Henderson and Dr. C. M. Henderson, Miss.; Mrs. M. Paxton, New York City; E. B. Williams, Ky.; Mrs. Jas. E. Marshall, Pa.; E. C. Schnorf, O.; Fred E. Drum, Mich.; Mrs. M. H. Waters, Ind.; C. H. Bradford, Ind.; Chas. F. Kofover, Pa.; Seymour Guthman, O.; P. A. Barker, O.; Mrs. Earl Cobb, Tex.; E. C. D. Ennis, Chicago; J. N. Former, Tex.; Mrs. Rob. Combe, Ia.; Chas. T. Dale, Ky.; R. Moglody, Chicago; Mrs. E. W. Trott, Mo.; C. F. Mottes, Ill.; F. A. Sebring and family, O.

News and Personals

Rev. J. C. Richardson, of Champaign, Ill., is stopping in the institution for a course of rest and treatment.

Mrs. E. V. Eastham, of Catlettsburg, Ky., an old friend and patient of the institution, is again with us.

G. A. Chilton, of Comanche, Texas, an old friend and patient of the institution, is again taking treatment at the Sanitarium.

Mrs. W. L. Taylor, accompanied by her two daughters, Pauline and Mildred, of East



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The D. & C. Lake Lines operate daily trips between Detroit and Buffalo, Detroit and Cleveland, four trips weekly between Toledo, Detroit, Mackinac Island and way ports, and two trips weekly between Detroit, Bay City, Saginaw and way ports. A Cleveland to Mackinac special steamer will be operated from June 25 to September 10, leaving Cleveland direct for Mackinac, stopping at Detroit enroute every trip and at Godenich, Ont., every other trip.

Special daylight trips between Detroit and Cleveland during July and August. Send 2-cent stamp for illustrated pamphlet and Great Lakes map.

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The Two-Year or professional course, intended especially for Dietitians, Lecturers, and Demonstrators, includes all the studies of the one-year course, and in addition Advanced Chemistry, Advanced Physiology, Sanitary Science, Bacteriology, and Hygiene, and Advanced English.

ONE SPECIAL FEATURE of this school is that students are given an opportunity to meet a large part of their expenses by work along lines which aid them in their studies.

**The Battle Creek Sanitarium School
of Health and Household Economics**

**BATTLE CREEK
MICHIGAN**

Liverpool, Ohio, is visiting Doctors Byington and Eggleston.

Mrs. W. P. McAdory, of Birmingham, Ala., accompanied by her sister, Mrs. Lulu H. Baird, has recently entered the Sanitarium for a course of treatment.

Mrs. Margaret Paxton, of New York City, who has been spending the past few months in South America, is stopping at the Sanitarium for rest and treatment.

We are pleased to announce the return of Mrs. J. P. Kirkman, of Nashville, Tenn., a friend and patron of the Sanitarium for several seasons, who has many friends in our family.

Next Sabbath will be observed as Children's Day in the Sanitarium chapel. The children of the Sabbath School will occupy the hour of the usual service with appropriate exercises under the leadership of the superintendent, Dr. W. F. Martin.

On looking over the arrival list we note the following doctors who have registered with us during the past week: Dr. C. M. Henderson, Sordis, Miss.; Dr. R. S. Gatell, Porto Rico; Dr. J. S. Sweany, Louisville, Ky.; Dr. H. Kahn, Chicago; Dr. V. J. Willey, Rochester, Minn.; Dr. Chas. F. Dale, Lexington, Ky.; Dr. Pliny F. Haskell, Chicago; and Dr. David Paulson, Hinsdale Sanitarium.

Dr. Albert H. Ross, a former graduate of the American Medical Missionary College, who has spent several years working among the Maoris in New Zealand, has been spending a few days visiting his friends at the Sanitarium. Mrs. Ross was formerly a medical matron in the Sanitarium, where she is kindly remembered by a large circle of friends.

On Wednesday evening of this week the Sanitarium helpers were invited to a lawn social by the managers. The evening was very pleasantly spent, music being furnished by the orchestra. Doctor Kellogg addressed the family, giving an interesting account of his recent visit to Boston and Washington, holding up before the workers the extraordinary privileges they enjoy in connection with this work.

Col. A. B. Schauerte and wife, of St. Louis, Mo., have once more returned to the Sanitarium, where they have spent the last six or eight summers in succession. Spending their winters in the warm regions of Southern California, they seek the comforts and homelike advantages of the Sanitarium during the summer. These aged people have made many devoted friends in the Sanitarium by their uniform kindness and amiability, and we are always glad to welcome their return.

The Sanitarium family was favored on the evening of the 21st with a most interesting lecture delivered by Rev. G. W. Ray, of Toronto, on "The Savage Races of Brazil." Mr. Ray has spent many years in the interior of South America, both as a missionary

and employed by the government. The degree of Fellow in the Royal Geographical Society has been conferred upon him as a recognition of his work. His lecture was beautifully illustrated with the stereopticon and specimens of the dress and utensils of the natives.

We are pleased to announce the arrival of Rev. J. P. McNaughton and family, who purpose to spend the remainder of the summer at the Sanitarium. The family consists of the parents and four daughters, who have been attending Oberlin College and have come to the Sanitarium for the purpose of spending the summer with their parents before they return to their missionary field in Smyrna, Turkey. Mr. McNaughton will assist in the pastoral work of the Sanitarium during the summer. The young ladies will take work in physical culture.

The annual meeting of the Alumni Association of the American Medical Missionary College was held on the evening of June 18. There was an attendance of over thirty members. President Dr. E. L. Eggleston was in the chair, and was assisted in the exercises by the secretary, Dr. Laura B. Stoner. Each class from '02 to '10 was represented by at least one member, who addressed the meeting with a few words of experience and encouragement. Dr. J. H. Kellogg was present and addressed the meeting in a few well-chosen and encouraging words. Doctor Eggleston was re-elected president for the ensuing year, and Dr. Carrie Staines was chosen secretary and treasurer.

On account of N. E. A. Convention at Boston, the Grand Trunk Railway System will operate a special train of standard coaches and sleepers and tourist sleepers through to

Boston via Montreal on June 30th. But one night out. Secure reservation early, of

L. J. BUSH, Pass'r Agt.

COTTAGES FOR RENT.—Furnished cottage on Waupakiseo beach, the most beautiful and retired spot on Lake Goguae. Private grounds, away from the crowd. \$50 a month. Rowboat free.

Cottage on Park Beidler, Lake Goguae, partly furnished. Will rent for the entire coming season of four months for \$50. CHAS. E. BARNES, Daily Moon office, or old phone 1379-J.

HIGH COST OF LIVING

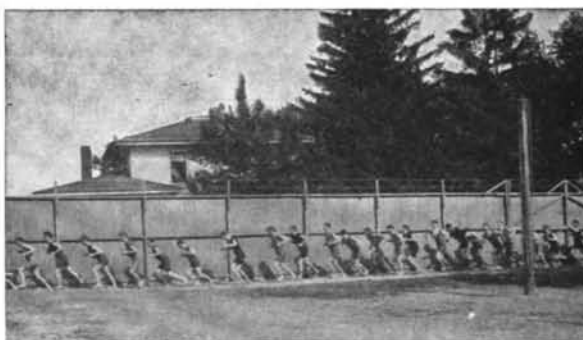
THERE are too many actors to bore us,
And stars who are hardly a shine;
There are too many girls in the chorus
Subsisting on lobsters and wine.
There are too many catered and waited,
Who call for the fizzy-and-dry,
Too few who are sowing, and hilling, and hoeing,
So, living—well, living is high.
There are too many thrummers and strummers
Annoying the keys and the strings;
There are too many chauffeurs and loafers
Who are riding in automo-things.
There are too many schemers and dreamers
And only a few who produce;
Too many investing in golden-egg nesting,
And few who are growing the goose.
There are too many preachers and teachers
Who work the south half of their faces;
There are too many tourists and jurists,
Whose suits are concealed in their cases.
There are too many lawyers and jawyers
Who demand, but who can not supply,
And they serve a subpoena upon a Martini,
And wonder that living is high.
Too many are looking for cooking,
Too few are encouraging spuds;
Too many find sinning is simpler than spinning,
And dress in delectable duds.
There is too much of diction and fiction,
And not enough actual toil;
There are too many diggers at fictitious figures,
And not enough diggers of soil.
There are too many rhymers and chimers
(Like me) doing versified stunts;
There are too many gapers (like you) of the papers
Who read and forget both at once.
There are too few who skin hard the vineyard,
Too many imbibing its juice,
And the while we inquire, "Why does living grow
higher?"
The bulk of us fail to produce.
—Edmund Vance Cook in Collier's Weekly.

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A Great Opportunity for Men and Women

A Two-Years Course. Each year comprises thirty-five weeks and an eight-weeks Summer Course.

By Affiliation with the American Medical Missionary College and the Battle Creek Sanitarium the students



of this School enjoy extraordinary advantages in the study and practice of Physiology, Anatomy, Hygiene, Chemical Analysis, and the various methods of Treatments that have made this institution famous.

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SANITARIUM, Battle Creek, Mich.

THE BATTLE CREEK IDEA



Vol. III No. 30

BATTLE CREEK, MICH., JULY 1, 1910

Price 2 Cents

NERVOUS EXHAUSTION OR NEURASTHENIA

Symptoms and Causes Stated in a Sanitarium Parlor Lecture by
Dr. W. H. Riley

THE term "neurasthenia" was first applied to a nervous disorder by Doctor Beard, of New York City, in the year 1869. This term is used to express a condition of the nervous system, the characteristics of which are an
(Continued on page five)

Health and Efficiency Rally

Experiences with Low-Protein Diet as Related by Several Members of the Sanitarium Health and Efficiency League

ONE of the most enthusiastic Health and Efficiency League Clubs of the whole country is to be found at the Battle Creek Sanitarium. Here are assembled hundreds of men and women who are vitally interested in every
(Continued on page three)

THE CAUSES OF RACE DEGENERACY

Facts for Sober Reflection, as Given in a Lecture at the Sanitarium by
J. H. Kellogg, M. D.

AN examination of the statistics gathered by the United States Census Bureau shows that there has been a very remarkable decrease in the mortality from certain diseases in the last twenty-five years; and during the last ten years there has been a decrease in the mor-



tality from certain maladies. These maladies are all acute in character. For example, bronchitis, in 1900, caused forty-five deaths in 100,000 population, and in 1907 it was thirty; peritonitis, fifteen in 100,000 in 1900, and seven and one-half in 1907. In tuberculosis, it was 180 to 100,000, and 158 seven years later. Pneumonia was 180, and seven years later, 120—quite a diminution. In bowel troubles, it was 133, reduced to 116; and typhoid fever, thirty-six, reduced to thirty; diphtheritic croup, forty-three, reduced to twenty-four; in meningitis, forty was reduced to twenty-six; gastritis, fourteen, reduced to ten or less. So you see the percentage in this class of diseases has decreased in the seven years referred to by these figures. Even the

Deaths from Old Age Have Decreased;

but how should we interpret that? A smaller number of people dying from old age,—is it a gain, or is it a loss? Of course, we shall have to count that as a loss. If fewer people are dying of old age, it means that they died of something else before they got

not Denver, and why can not all the rest of our American cities, do the same thing instead of having so many people die every year? It means that these people are needlessly dying. Look at The Hague, where the mortality is only two in 100,000, because they use filtered dune water. And in London, that great city, the mortality is only seventeen, for they use filtered water from the Thames. So you see how many thousands of lives can be saved by simply studying this matter of health, and taking care.

Mortality from Chronic Diseases Increasing

While the mortality from acute diseases has been diminishing so rapidly, the mortality from chronic maladies has been increasing with equal rapidity. Here is heart disease: In 1900 the mortality was 111 per 100,000; and in 1907 it was 141—an increase of twenty-seven per cent in seven years. Bright's disease, eighty-nine in 1900, and 115 in 1907—an increase of eighteen per cent in seven years. That is a serious thing. Apoplexy in-

It is the Prevalence of Chronic Disease that really determines the number of people who will die of old age; because if a man dies of pneumonia before he gets old, he could not be put down as dying of old age. A man must have lived to be an old man before he can die of old age; then he must die from the infirmities of old age rather than from some acute malady. So that a reduced number of people dying of old age is a loss, it is an indication of race deterioration; and the increase of mortality from chronic disease is a most positive indication of race deterioration, of race decay. When we study the matter from the viewpoint of statistics, there is no question that the human race is deteriorating. We have been deceiving ourselves in the supposition that the average length of life is increasing, because of our learning so much about how to take care of health. We think that we are going on at a flourishing rate, and that the race is improving all the time, getting more knowledge and getting more health, and becoming more and more vigorous.

While it is true that we are gaining more knowledge,

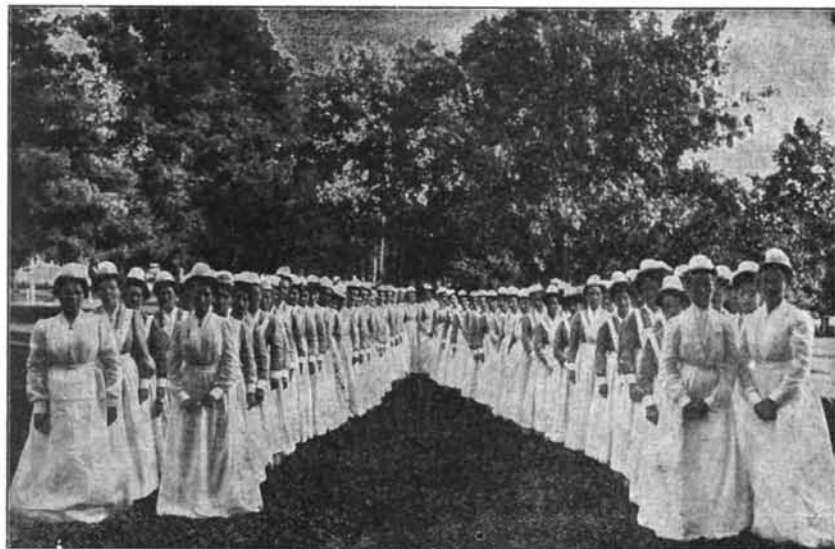
We are Growing Weaker;

and at the present rate of degeneracy we shall all be lunatics and idiots in 265 years, as I have already shown you. But we will never get there, because we shall die of Bright's disease, apoplexy, heart disease, and these other diseases before we ever reach 265 years from the present time. For instance, heart disease increasing at the rate of 200 per cent in fifty years, in 265 years the increase would be over five times as much, or over one thousand per cent. And you can see what that would amount to. If we now have 140 people out of every 100,000 dying of heart disease, in 250 years it would increase to ten times the present number, or 1,400 a year per 100,000. Multiply all these diseases by ten, and it is apparent that we can not go on at that rate, for the whole population would be dying off of those few maladies.

Insanity is Increasing

at such a rate that it is amazing. I am certain that the number of insane people is very much larger than it is generally believed to be. I was talking with the secretary of the State Board of Charities of Illinois, two or three years ago, and he told me that in Illinois they have more than ten thousand lunatics in the insane asylums; and he said he had been making a very careful estimate of the number of people that were insane but outside of the insane asylums, and he determined that there were at least 50,000 lunatics in the State of Illinois that had not yet been captured and shut up. According to this statement, which was made to me by an official of the State of Illinois, there are sixty thousand lunatics in Illinois alone. And I suppose there are just as many in Michigan in proportion to the population. It is in the great cities where degeneracy is most apparent and is going on with greatest rapidity.

I have called attention to the fact that while acute diseases are diminishing because we have learned how to keep them out of sight, chronic disease is increasing. These acute maladies come in from the outside. We



WOMEN NURSES OF THE SANITARIUM

old enough to die of old age. So, as a matter of fact, it is a calamity that there is a smaller number of people dying from old age than formerly. There were 35 per cent less people dying from old age in 1907 than in 1900, and also there was a greatly reduced number of deaths from those acute maladies. We observe that there is a close relation between typhoid fever in a city and the water supply. In Denver, for example, the mortality was 217 per 100,000, because they get water from the North Platte River and from wells.

In Chicago the mortality is seventy-two, and they get water from Lake Michigan. It is not so bad since they have turned the sewers down the canal. At Cincinnati, on the Ohio River, the mortality is fifty-one per 100,000 from typhoid fever every year. In Paris, with spring water, they have a typhoid death-rate of twenty-five; and when we come to Vienna, they can prevent typhoid fever so that there are only seven out of 100,000 who die in a year of that disease. Why can

creased from sixty-seven to seventy-five—an increase of eleven per cent in seven years. Cancer increased from sixty-three to seventy-three—fifteen per cent in seven years. Diabetes has increased forty-three per cent in seven years; appendicitis has increased fifteen per cent; congenital debility has increased thirty-seven per cent; endocarditis has increased twenty per cent; so you see there has been a steady increase. Why, by 1950, if the increase keeps on at the same rate, see where we will be. Heart disease will increase 195 per cent in fifty years if it goes on increasing at the same rate. Bright's disease will increase 152 per cent in fifty years; cancer, 122 per cent; cirrhosis of the liver, 160 per cent; and diabetes 300 per cent, if the present rate of increase continues; so we see that, while in the last few years, right at the present time, we may say, between 1900 and 1907, there was a marked decrease in the mortality from acute disease, there was an equally marked increase in mortality from chronic diseases.

learn how to ward them off. They are accidents, so to speak; but

Chronic Diseases are a Home Product.

They grow in our systems, and we can not charge our neighbors with them. We cultivate them in the kitchen, at the dinner table, in the dining-room. They are a home-grown product. We would not have chronic diseases if we lived for health instead of living for a good time, or living recklessly and carelessly, as we would not allow a dog or a canary bird or a favorite horse to live. We do not treat ourselves half as well as we would treat mules. We simply abuse our bodies. We do not stop to think that these bodies of ours are the choicest of our possessions, and that our bodies are given to us for use and that we should train them up in such a way as to get the most out of them. We do not stop to think what is the best thing for us to eat, or what is the best thing to do; but the question is, "What will taste good?" It is not, "What is the thing that will make the best muscles, the best nerves, the best blood, and will give me the greatest efficiency and the longest life and the greatest amount of comfort, efficiency and usefulness?" that is the thought when we sit down to the table to eat; the whole thought is, "What will taste good? How can I tickle my palate and gratify my appetite?"

Startling Indifference

I have just been talking to a gentleman, trying to persuade him to give up the use of red peppers. He has lived in a warm country, where he became accustomed to eating eight red peppers for a meal. He admitted that he had an enlarged liver. I labored with him very earnestly to make him see that his liver was damaged and injured to such an extent it would be better to take good care of what was left.

I met a man the other day with arteriosclerosis and a high blood-pressure. "Well, Doctor," he said, "I suppose I shall have to give some attention to it. I have to go home now; I have some things to attend to, some business to see to; but next fall I am coming back and going to stop here a while and see if you can not do something for me." Just think of it!—with a blood-pressure double what it ought to be. He is liable to have paralysis any minute. I wish I knew how to alarm people enough so they would understand their real condition. But that man is perfectly willing to go home and wait six months, and his arteries getting harder every minute, and the chances for recovery getting smaller. Why, if some one were to rush in and tell you your house was afire and the flames bursting out of the windows, and you were playing a game of cards, you would not say, "I must finish this game of cards, and then I will attend to the fire." You would throw the cards to the floor, spring to the telephone and shout to the fire department to come quick and put that fire out. That is what chronic disease is—it is a house afire, and the fire is burning every minute as the years go by.

Mr. Angus—If you knew how to cook, we could save money.

Mrs. Angus—If you knew how to save money, we could hire a cook.

HEALTH AND EFFICIENCY RALLY

(Continued from page one)

thing that pertains to health and increased efficiency. Once or twice a week a meeting of the club is held and the members exchange experiences.

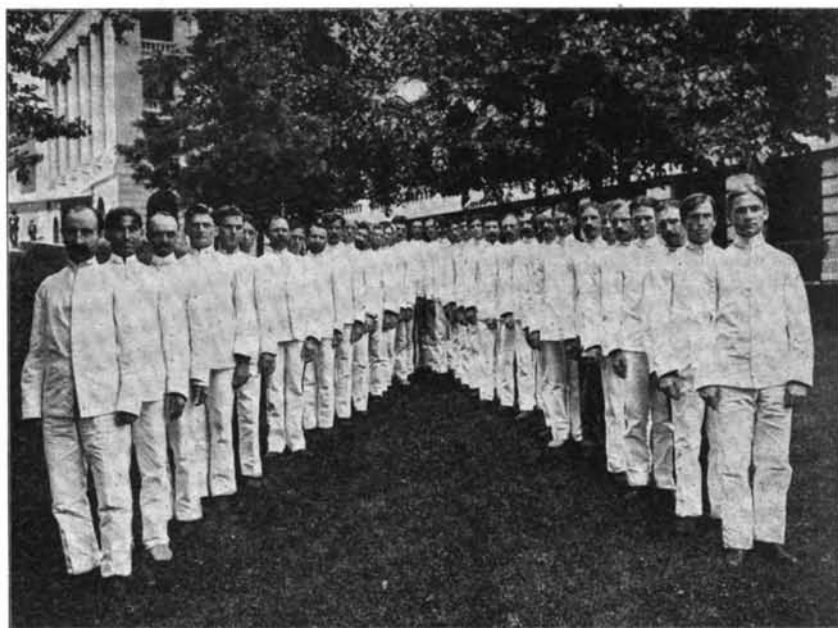
At a recent meeting, at which fully two hundred members were present, the subject of discussion was the advantage to be gained by a low-protein dietary. The following remarks were made by the chairman in introducing the subject for the evening:

The common idea that we must eat meat in order to be strong, in order to have endurance and efficiency, is beginning to disappear. It has had some very hard knocks in the last few years. I have a letter to-day from Karl Mann, who made the longest walk in the shortest time that has ever been made. He walked from Dresden to Berlin, one hundred and twenty-four miles, in twenty-three hours. Karl Mann won his race on a low-protein diet; and six others came out ahead of the

called upon me to-day, and after talking over the business that we had in hand, he said, "Doctor, I want to tell you something. You know I was up here to see you last December, and you took my blood-pressure, and found it was a little high. I stopped smoking right then and there, and I have not touched beefsteak since, and I confess I am a great deal better." I was very much surprised when I met the gentleman to see him looking so well.

What he had accomplished by this simple means, by dropping out beefsteak, tea, coffee, and tobacco, and other harmful things, every man in the same condition may accomplish. We want to hear from some others here who have had a good experience. I see our friend Mr. Bishop, from New York, who a few years ago was in a most dilapidated condition, but he does not look that way now; and I wish he would stand up so all can see what the low-protein diet has done for him.

MR. J. M. BISHOP: I broke down in health because I was ignorant of the laws of health.



MEN NURSES OF THE SANITARIUM

first man who was subsisting upon a high-protein diet.

A great many people were awakened by the experiments published in Professor Chittenden's book, "The Nutrition of Man"; and by magazine articles, and Mr. Fletcher's lectures, and in various ways, the world came to know of these wonderful results; so a great many others have been making experiments along the same line. We had with us last year an eminent New York corporation lawyer who told us of his experience; of the wonderful improvement he made by reducing his protein; and after his visit here he reduced it still more, leaving out meat entirely; and when I was in the East the other day I met an honored friend, who said that this gentleman had been to see him, and was wonderfully improved. I have had repeated letters from him, and he tells the same story, and he attributes it to leaving off meat. One of the leading citizens of this town

I lived a sedentary life, ate three square meals a day, and by violation of the laws of health reached a state in which I expected to die. I should have died if I had not learned the advantages of a low-protein diet.

THE CHAIRMAN: Mr. Bishop's robust appearance certainly indicates that the low-protein dietary which he has now closely adhered to for a dozen years has agreed admirably with him. Every such case is a solid argument against the high-protein theories of Voit and others who have based their standards upon common usage, rather than actual needs.

When Mr. Bishop went back to the government office in Washington, where he occupied a post of great responsibility, after a vacation in which he had learned about and adopted the low-protein diet, his friends were astonished at the marvelous change in him. Through his influence and that of Mrs.

(Continued on page four)

Original from

UNIVERSITY OF MICHIGAN

The Battle Creek Idea

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VOL. III JULY 1, 1910 No. 30

PROGRESS IN HEALTH AND HYGIENE

EVERY ONE is at least to some extent aware of the fact that during the last few decades great progress has been made in sanitary and medical science, and the result has been of the greatest value to the human race in staying many of the most virulent acute diseases and epidemics which have for many ages preyed upon the human family. Diseases which a generation ago were regarded with terror, are now scarcely feared. Great advancement has been made in public sanitation, in quarantine measures, and in various means of safety and precaution. Boards of health now actively supervise the hygienic conditions of our cities, and the causes of contagion are consequently curtailed or entirely abated. Whole regions of the earth that a few years ago were practically uninhabitable, are now salubrious and wholesome.

A careful scrutiny of the situation reveals the fact that measures for public health meet with general approval, and the institution of public supervision is at least tolerated with little protest, especially as far as it does not interfere with the plans and interests of individuals. If some men can be found who for a consideration or for philanthropy's sake will attend to these matters, the average man has no objection to their doing so. Almost everybody is in some measure at least passively interested in the matter of the preservation of life, and so the governmental authorities meet with no marked opposition in their efforts to improve the sanitary conditions of our communities. And that is all very well and laudable.

But something else is needed, and that thing is very much more vital to the matter of life and health preservation, or "conservation," as the current term has it. It is far more important that each individual should realize the very great importance to himself and the community of his taking a personal interest in the promotion of individual health and hygiene. Public measures are very well, but they do not adequately reach the real seat of trouble. As expressed in the lecture by

Doctor Kellogg in this paper, it is the alarmingly increasing prevalence of chronic diseases that now threatens our very existence as a race; and these diseases are due to personal habits that can not be reached by public measures. Chronic ailments are the result of personal sowing, and are not attributable to such causes as provoke great epidemics of acute maladies. Cholera, smallpox, the plague, la grippe, and many other such troubles spring from extraneous sources and attack the individual who may be entirely innocent of any offence to cause them. But heart disease, apoplexy, Bright's disease, liver troubles, and such maladies originate at home. They are induced by their victims, and this class of complaints now form the great menace of this generation and of that which is to follow. These troubles must be met by the individual himself, and the fight against them can not be delegated to a board of health. The great task before us, then, is to arouse the people to such an interest in their own welfare that they will grapple with the evils in their own lives and practices.

This is a mighty task as compared with that of providing for public measures. Plenty of people will advocate public health, and public morals, and even public piety, who are altogether averse to making any effort to promote these things in their own families and in their own lives.

HEALTH AND EFFICIENCY RALLY

(Continued from page three)

Senator Henderson, Mr. Wu Ting Fang, who was also a chronic invalid with a poor chance for life, adopted the low-protein regimen and has since adhered closely to a non-flesh diet, and has propagated the doctrine among the higher classes of China.

GENTLEMAN FROM SEATTLE: About six months ago, after four years of hard work in Seattle, trying to establish a million dollar foundation for myself,—I did not succeed exactly,—the doctor told me, "You better eat beefsteak three times a day"; and I began to eat three beefsteaks a day, and beef-juice in connection with it, which contained lots of unfriendly germs, as I learn here.

On the train coming from Seattle to Chicago, three days and three nights, I ate nine times of meat. I am here to get my strength and vim and vigor and vitality back, so I can go back and finish up my million dollar business. I have been here four weeks now, and have been feeding on this low-protein system, and I feel well fed up. I have gained eleven pounds since I left Seattle, and for the last six months I could not gain a pound by eating meat three times a day. I was so nervous when I came here that I almost fainted when the doctor put me on the examination table; and a month ago I could not have stood before this audience to say a word without fainting right away; and now, though I can only talk about one month's experience in regard to the low-protein diet, I

can tell you, ladies and gentlemen, of great benefits that I have received.

I met Mr. King, who was here a year ago, at the Y. M. C. A. Trustees' meeting at Seattle, at a banquet where there were all kinds of meats; and Mr. King sat next to me and did not eat any of those meats. I asked him why he did not eat meat, and he said, "I spent about a month in Battle Creek, and they taught me the danger of meat. Though I was not from Missouri, they showed me that meat is not the best thing to eat; and since I have been there I feel like another man absolutely." As I have said, I have been here only four weeks, and I can say today that I am mighty thankful that I am here.

THE CHAIRMAN: These experiences from actual life are always interesting. We are much obliged to the gentleman for what he has told us. Just a word now from Professor Biddle, of the Northwestern University, Chicago. Professor Biddle is a psychologist; that is his profession; and he has come here for the purpose of testing us out to see what the low-protein diet does for our mental faculties. He has had some experience himself with the low-protein idea.

PROFESSOR BIDDLE: Doctor Kellogg brought my attention to the low-protein diet several years ago in the literature which he sent out over the country. While I was at New York University in 1907 to 1909, my attention was brought particularly to some literature which spoke of this low-protein diet; and we carried on some experiments to test the endurance of students who were on a low-protein dietary to see whether they could do better mental work and better physical work while on this dietary. There were three men who agreed to put themselves on the low-protein dietary for these two years; and these men were tested at the beginning by physical tests, and they were tested at the end, and every one of them showed an increase. I won't go into details now to tell you about the amount of increase these men showed, but I will just sum it up in a few words. There were several other men who were working on a flesh dietary at the same time, and these men that were matched against the non-flesh eaters or vegetarians, as they called us, laughed at us; but we were trying to experiment, and were going to stick to it during the college course; and it turned out that every time they came up against us we could do more physical endurance tests by about seven-tenths than they could. We always went ahead of them about seventy-five per cent. As far as brain work was concerned, I am sure I was benefited fifty to one hundred per cent by my change of dietary to the low-protein diet. There was one man who is professor of Spanish and Italian in Yale University, who got up at five o'clock every day, taught classes all day long, and then would go down town and teach in the Berlitz School of Languages in the evening; and this gentleman increased about thirty per cent in weight during those two years, and his strength increased at a similar rate, and his mental work also was doubled and was equal to that of any other man at the University that I knew at that time; and the other two men did work in the same proportion, and they never seemed to tire out; they would work on little sleep, often only

two or three hours a night, and worked for a whole week like that; and at the close of this time, in 1909, we took measurements, and the endurance test with the arms held in a horizontal position, and other exercises of that character, to see just exactly how we stood; and in every one of the cases we excelled the men who were working on a flesh dietary.

Mr. A. M. DAVIDSON (of Trinidad): In the West Indies the stamina of the coolie worker came immediately under my observation for nearly eight years, from 1884 to 1892. I have worked all the way from 1,500 to 2,500 of these coolies at a time on different sugar plantations on the island of Trinidad. During the entire period, I had these coolies under my personal observation and supervision. Their work and the supplying of their provisions were under my supervision. The rations were prescribed by the British government.

These coolies came from the East Indies under indenture and were apportioned out to the different sugar estates. The estates were under contract to keep them for three years, and the coolies were to work for them for certain charges, the estates furnishing them with rations. These rations consisted daily of one pound of rice, four ounces of peas, and from two to two and a half ounces of coconut oil. They were given salt some of the time, but I do not think salt was a part of the prescribed ration for these coolies. The Chumar and the Jholaha, the lowest castes, were a very poor class of labor as

compared with the higher castes. They did not have the stamina that the other castes had. It is significant that these two castes had been meat-eaters before coming to the West Indies.

The assertion that one Englishman can do the work of ten coolies is entirely at variance with my observations. A coolie woman can carry an average Englishman on her head and walk another Englishman to death. A male coolie can do considerably more. When I make that assertion, I do not make it lightly. During the grinding season I have worked women in the boiling houses under what is called the old Muscavado process, which necessitated their carrying a weight of one hundred pounds of raw sugar on their heads for a distance of about five hundred yards, more or less, to the curing house, and they would keep up that work for twelve or sixteen hours at a time.

During the grinding season also, the bogasse, or residue of the sugar cane, which is used for fuel, is all carried to the furnaces by women, and I have known them to work all the way from twenty to twenty-two hours a day at that hard manual labor, and all the sleep they would get would be a couple of hours sometimes, and a half-hour each day would be spent in cooking and in washing. The Brahmin, the Mahdingoman, and the Mussulman are very cleanly people. The first thing they do in the morning is to take a bath. Bathing is a part of their religious belief.

In gathering in the cane in the cane fields,

the male coolies carry it in bundles on their heads to the cars, and these bundles of cane weigh from 100 to 200 pounds, and they carry these bundles for sometimes as much as twenty hours a day. These are feats of stamina I have never seen equaled by other races. We have the negro on the Island of Trinidad. He is a powerful man, and can perhaps do more work in a short time than a coolie, but for endurance and long-distance walking the coolie will work him to death. There are a wet and dry season there. I had a messenger whom I sent all the way from Cuva to Port of Spain for dispatches and mail, when the bridges were washed away and the trains could not run. The distance is a little over sixty miles. That messenger would start, say Monday morning, and on Tuesday night he would be back again on the plantation with the dispatches, and he would probably carry fifty pounds in weight. During a great part of that 120 miles he would have to ford many streams, and in many places would be knee-deep in mud. And yet this was considered only a very common task among those natives, and not at all unusual.

THE CHAIRMAN: There are quite a number here who have interesting stories to tell, but it is getting late, and we will have to close our meeting. I just want to call attention to the Health and Efficiency League of America. Mr. Horace Fletcher is president; Professor Fisher, of Yale, is a member of the executive committee; Mr. S. S. McClure is another member; Doctor Vincent, the dean of the University of Chicago, and president of the Chautauqua institution, is one of the vice-presidents; Judge Lindsay, of Denver, is another vice-president; and Doctor Clarke, of the Christian Endeavor movement, is another vice-president. This League has for its purpose to unite all those who believe in this low-protein idea, and in gaining health by right living; and those who want to live long,—a sort of longevity club. We already have several thousand members. Every person who comes here to the Sanitarium and is regularly initiated into the institution as a patient becomes a member automatically of this League, by simply signing an application at the cashier's office. There is to be a meeting of the League at Chautauqua in August or July. The League has an invitation to hold the meeting there regularly every year. There will be lectures by Doctor Wiley and others. There is a rising interest in this subject of health and right living all through the country.

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EXHAUSTION OR NEURASTHENIA

(Continued from page one)

underlying nerve weakness and a nervous irritability. When we go back in medical literature, we find descriptions of certain conditions that resemble very closely this so-called modern disease of neurasthenia; but these conditions do not correspond exactly with our modern neurasthenia; that is, the symptoms of these neuropathic conditions as expressed by these older writers were somewhat different than we find nervous exhaustion today. Medical literature of the eighteenth century describes all functional nervous diseases under four different terms, and these

writers ascribe the cause of these conditions to sedentary life, luxurious living, and the unsanitary conditions of the large and populous cities at that time.

On the Increase

The question naturally arises whether or not this condition of nervous exhaustion and nervous weakness which is usually described under the head of neurasthenia is more prevalent in our time than formerly. This is not, perhaps, a very easy question to answer, but, in my opinion, there is more nervous exhaustion, more of mental irritability and other neuroses in recent times than the literature of those days indicates in times gone by. And the reasons for this are probably several. First of all, there are more people in the cities than in the rural districts at the present time, more are going to the cities; and there are more who are earning their living by their brains than formerly, and more who are living on a higher mental plane than in days gone by. And all of this means that there is more nervous and mental strain, and so causes are more active at the present time to produce these disorders than formerly.

In Describing This Disease

I shall draw largely from my own experience in dealing with a large number of cases of this disorder, and perhaps it will be well for us at the outset to draw boundary lines and separate this condition from many other conditions with which it is apt to be confused. I do not think this is an easy matter to do, as there are many other conditions that are very closely allied to what is usually described under the head of neurasthenia. In modern times we have many conditions in which the nerves show a diminution of force. Literally the term used to denote this state means an absence of nerve force; it is applied to a condition where the nerve force is reduced but not entirely absent. Psychasthenia is a similar term, meaning a lack of mental force. Then we have melancholia, hypochondriasis, and other conditions very closely allied to what is usually described under the head of neurasthenia.

I shall endeavor to take what we might call a typical case of neurasthenia and tell you something about it. Of course I do not expect to discuss the subject fully to-night.

Peculiar Conditions

Neurasthenia is a disease that appears more often at certain periods of life. Most cases are seen between the ages of twenty and fifty years. In fact, there are very few cases which occur before twenty or after fifty. Of course, in senility there is nerve weakness, a weakness of the body generally, and this is described by some writers as senile neurasthenia; but that is outside of our subject to-night. Most of these cases occur between the ages of twenty and thirty, and nearly all of them will be included between the ages of twenty and fifty years. This is a disease that occurs during the active, productive period of life. The most typical cases are seen in men; whereas a typical form, complicated perhaps with hysteria or with spinal irritation or with headache, or with some other functional disorder of the nervous system, is seen more often in women. This disease is more common in our own country, I

believe, than in any other, and for this reason it is sometimes termed the American disease. And in this country we find it more prevalent in certain sections—in the Northern States and in the Northwest and in the elevated regions of the West where there is a high wind and much sunshine, and where there is a great deal of stimulation to the nervous system on account of the high wind and large amount of sunshine; a larger number of cases are seen in that section of our country than in the East or in the South. Some years ago I spent seven or eight years in the State of Colorado, and while there I saw quite a large number of cases of this disorder.

Then, it is a disease that

Affects Certain Classes

of society more than others. We find subjects of this trouble among the intellectual classes and those who are most active in mental life; and consequently physicians, teachers, clergymen, lawyers and artisans furnish a very large contingent to this trouble. And then there are certain races afflicted with it more than others. I have found a large

number among the Hebrews, Scandinavians, and often among the Irish; fewer among the English, and least of all, I think, among the Germans.

These are what we might call the predisposing causes. I have already mentioned it as being more prevalent in the city than in the rural districts, though I might mention further that certain occupations that keep one indoors are more apt to produce it than out-of-door occupations. And men who have occupations in which there is great mental strain, as I have already intimated, furnish a large number of these cases.

Heredity a Cause

Perhaps I should state before leaving the predisposing causes that heredity is perhaps the most predisposing cause of any of those I have mentioned. Heredity is a word used to express conditions which are transmitted from parents to offspring on account of some peculiarity of the original germ cell with which we all begin our lives.

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a mesh-work, and in these meshes is a semi-fluid substance like the white of an egg; in the center of which is a nucleus, and this nucleus is the center of life of this cell; it is to the cell what the heart is to the body. If the parent is strong and vigorous, then this cell will be strong and vigorous, and the material in this cell will be of a good quality, and the child which develops from this cell will be strong and healthy, and will have a healthy nervous system and one that is not liable to any form of disease. On the other hand, if the parent from which this cell comes is weak and in poor health, then this cell will also be feeble and the material of this cell will be of a poor quality. Such an individual is liable to have some nervous trouble, or perhaps some other trouble. There are a lot of things called heredity that are not heredity. This matter of heredity is more active in what is called the primary form of neurasthenia, a form that appears early in life during convalescence. The kind I shall speak of now is what I might call acquired, a form that comes in middle life. And the hereditary element here might be very active, and in most cases we find it active to a greater or less degree even in these acquired cases.

The Exciting Causes,

those that bring out the disease. These we may put under certain heads or classes. First, we have mental causes, those that act through the mind; and here we have fright, excitement, worry, disappointment. Mental strain or mental shock is very prolific in causing this disease in a subject that is properly prepared. These mental causes never
(Continued next week)

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ARRIVALS

FOLLOWING is the list of arrivals at the Battle Creek Sanitarium for the week ending June 19: Dr. B. J. O'Connor, Ky.; M. I. Scott and wife, Ind.; H. H. Peters, Ill.;

Mrs. E. T. Long, Mich.; J. A. Clifton and wife, Tex.; Fritz Gaebel, Mo.; Geo. A. Wolters and Anna, Iowa; S. A. Smith and wife, Neb.; T. W. Zenier and wife, Chicago; T. C. White, New York City; Mrs. C. G. Stevens, Mrs. A. S. Dorman, Mrs. H. B. Bobson and Belle Linard, Chicago; Mrs. B. F. Bell and Lenna, Ga.; Mrs. E. A. Sutherland and two children, Tenn.; W. A. McKeeser and wife, Okla.; Mrs. E. W. Steifel, Mary Elizabeth and Miss Laura Steifel, and L. Harvey Pollock, W. Va.; B. M. Asenkson, O.; H. H. Albert, Ind.; C. G. Wheeler, Chicago; L. L. Caviness, Neb.; J. Newton Nind, Chicago; Mrs. J. H. Shirk, Ind.; Mrs. M. E. Hart and Orrin Hart, Mich.; Eva Lee Cole, W. Va.; R. J. Haines, O.; Mrs. H. J. Hansen, Cincinnati; Lewis Bogan, O.; Mrs. Isaac Fawcett, O.; Mrs. C. O. Ballett and Helene, Ill.;

Wesley M. Owens, Canal Zone; Mrs. Wm. J. Hussey, Mich.; Frank Everts, Mo.; Charman Holbert, Ia.; Malcolm McClellan, Fla.; F. A. Yockey, Ill.; E. H. Thompson, Washington, D. C.; Mr. and Mrs. Jno. Jones, Mont.; Henry and Martha Clifton, Detroit; Mr. R. E. Derrer, Neb.; F. B. Woodley and wife, Miss.; Mrs. A. C. Stanley, N. I. McColl, Mo.; Mrs. G. E. Carrothers and Dr. Carter, Ind.; G. W. Ray, Toronto; A. J. Thomas, O.; Henry C. Clifton, Detroit; F. B. Matthews, Mich.; Jesse M. Saffell, O.; B. F. Burtless and W. A. Newton, Mich.; N. J. Oakes, Ia.; Sam'l Combs, Ill.; G. Parker, N. Y.; Mrs. G. A. Atwood and Miss Birdie Atwood, Mo.; Oscar F. Kern, Philadelphia; J. F. Laderer, Kan.; N. F. Graves and C. E. Tarris, Tenn.; Mrs. M. J. McPherson, Mich.; Mrs. G. N. Nickel, Conn.; Mrs. Chas. Gor-



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News and Personals

Mrs. E. S. Alshire, of Huntington, W. Va., accompanied by her son, is a new arrival at the Sanitarium.

Hon. Wesley M. Owens, Associate Justice of the Supreme Court in the Canal Zone, is a guest at the Sanitarium.

Judge Barney, of Washington, D. C., is taking rest and treatment in the institution. He was accompanied here by his daughter.

Mrs. E. E. Stacy, of Indianapolis, is renewing old acquaintances at the Sanitarium. Mr. Stacy is State secretary for the Y. M. C. A. of Indiana.

Miss Charman Holbert, of Greeley, Ia., has entered the institution for a course of treatment, and also to visit her father, who has been here for a few weeks.

Mr. Jos. Corn, who has been with us for some time taking treatment, has been joined by his wife and three little daughters, who arrived on the 26th from New York City.

Mr. Jos. Thom, who has been a patient at the Sanitarium for several weeks, has returned to his home in Saginaw much benefited in health by his stay here.

Mr. A. P. Thom, a retired sheep and cattle raiser of Queensland, Australia, who now travels extensively over the world and frequently sojourns at the Sanitarium, is again with us.

Miss Mamie Youngberg, a graduate nurse, who has been spending several months at her home in Brookings, South Dakota, has now returned and resumed her duties at the Sanitarium.

Dr. A. J. Wood, a recent graduate of the American Medical Missionary College, and Miss Florence Emery, a graduate nurse, were recently joined in marriage. They will take charge of the College Dispensary at Thirty-fifth Place, Chicago, after July first.

Hon. Chas. A. Wickersham, of Atlanta, Ga., president of the Atlanta & West Point Railway, and prominent in Southern business circles, made another brief visit to the Sanitarium last week. Mr. Wickersham is cousin to the United States Attorney General.

Among those who have returned to the Sanitarium during the past week for further rest and treatment, we note the following: Mrs. H. Z. Hanson, of Cincinnati; Mrs. E. W. Washburn, Fremont, Ill.; S. V. Straley and family, Princeton, W. Va.; Mrs. G. L.

Ellis, Macon, Ga.; Mrs. E. H. Stroud, Pittsburgh; Jas. Van Buren, Kansas City, Mo.

The annual convention of the State Society of Christian Endeavor is being held in Battle Creek at the present time. The convention opened very auspiciously on the evening of the 30th with a banquet in the Sanitarium gymnasium. The first meeting of the session was held subsequently in the Sanitarium chapel. There is a very large attendance of delegates from outside the city.

Dr. Wilbur F. Crafts, of Washington, D. C., well known for his connection with National Reform movements, is stopping for a short time at the Sanitarium. He delivered the address before the graduating class of the Graham Shorthand and Business School in the Sanitarium chapel on Tuesday evening. Mr. Crafts is very much elated over the success of himself and *confreres* in preventing the brutal fight from taking place in San Francisco, and with us entertains the hope that these shameful exhibitions may be frowned down and out.

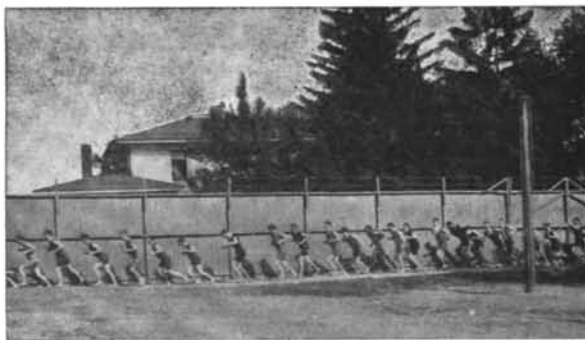
We are requested, by the management of the Battle Creek Chautauqua, to state that season tickets purchased prior to July 1 may be obtained for \$2.00. After that date the price will be \$2.50. It will be of material assistance to the committee to have the tickets purchased at an early date. The committee has received no cancellation of contracts, and everything points to a most successful Chautauqua course. Those desiring tents for use during the meeting should arrange with the Industrial Association as early as July 1, if possible. As this enterprise is wholly for the social and educational benefit of our community, it behooves every individual to take a due interest in promoting it.

Normal School of Physical Education

A Great Opportunity for Men and Women

A Two-Years Course. Each year comprises thirty-five weeks and an eight-weeks Summer Course.

By Affiliation with the American Medical Missionary College and the Battle Creek Sanitarium the students of this School enjoy extraordinary advantages in the study and practice of Physiology, Anatomy, Hygiene, Chemical Analysis, and the various methods of Treatments that have made this institution famous.



The Equipment is complete in gymnasium, laboratories, and swimming pools.

Tuition for the full year, \$100, including Summer School; for the rest of the year, \$75. For the Summer Term alone, \$35. Board \$3.00 to \$3.50 per week. Unusual opportunities are given for earning money toward expenses.

For full particulars address:

WM. W. HASTINGS, DEAN,

SANITARIUM, Battle Creek, Mich.

THE BATTLE CREEK IDEA

Vol. III No. 31

BATTLE CREEK, MICH., JULY 8, 1910

Price 2 Cents

NERVOUS EXHAUSTION OR NEURASTHENIA

Symptoms and Causes Stated in a Parlor
Lecture by Dr. W. H. Riley

HAVING, in the previous article, stated somewhat the conditions and predisposing causes of nervous exhaustion, we will now proceed to note some of those causes which we may denominate

ANNUAL MEETING OF THE SANITARIUM ASSOCIATION

How the Battle Creek Sanitarium is Organized and Conducted

THE Battle Creek Sanitarium is owned and conducted by a philanthropic association under the corporate title of the Michigan Sanitarium and Benevolent Association. This is not a stock company. The constituency are

TREATMENT BY SUGGESTION

Doctor Kellogg in a Lecture Gives an Account of His Personal Investigation of the Emmanuel Movement

I THINK suggestive therapeutics is all right if properly used, but hypnotism is quite unnecessary, and likely to do a great deal of harm. More than that, it is impossible to



A GROUP OF MISSIONARIES AT THE SANITARIUM

Exciting Causes

These we shall classify under certain heads. First, there are mental causes, which include those experiences that cause a shock to the mind, such as fright, excitement, worry, and disappointment. Mental strain or mental shock is very prolific in producing

(Continued on page five)

known only as members, and many of them have never invested in the capital of the concern to any extent, unless it be by their services. The stock has no monetary value, for there are no dividends nor profits of any kind accruing to any individual. Each member has one vote, and only one, and can not vote

(Continued on page three)

practice hypnotism without fraud. In fact, it is very difficult to practice suggestive therapeutics without committing fraud. One has to watch himself very carefully, and be very tactful and very sharp-witted to get along without telling downright lies.

While in Boston some time ago, I took the opportunity to investigate the matter. I

Original from

UNIVERSITY OF MICHIGAN

went to headquarters and had an interview with one of the assistants. After talking with him about various things, I asked him if he could cure insomnia by suggestion. "O, yes." "Well, now, how will you do it? Suppose I can not sleep, and I ask you to cure me of insomnia by suggestion, how do you do it?" He replied, "I would say, first, 'Sit down in this chair. Now, then, I am going to put you to sleep; you are going to sleep. Close your eyes. Now compose your mind and be quiet; put all unpleasant thoughts out of your mind. There, now, you are going to sleep; you are looking sleepy already; in just a few minutes you will be asleep; there, I can see sleep just creeping over your face. You are looking sleepy; you are breathing deeper; very soon you will be asleep; you are going off—going off—there, you are asleep; you are asleep, now, keep right on sleeping.'" "But," I said, "suppose I should suddenly open my eyes just then, how about that?" "Well," he said, "of course, we should not succeed that time; we would have to try it again." "But," I said, "you have been lying to me all that time. What about that? You have been telling me I was looking sleepy when I did not look sleepy. It looks to me as though you would have to reckon with your conscience a little in this thing." He said, "O, of course, there is more or less uncertainty about all human affairs; we can not be absolutely certain; still we can tell pretty well whether we can put a person to sleep or not. If we do not feel fairly sure, we do not tell them so."

So in using suggestive therapeutics, and in employing hypnotism, it is necessary that the subject should be fooled; the operator, the hypnotist, or the man who employs suggestive therapeutics, has to make the subject believe that he can do something which he can not do. He has to make him believe he is possessed of power which he does not possess. It is simply the state of the subject's own mind; it is not anything which the operator does to him; it is what he does to himself, and whether he does it or not depends upon how much confidence he has in the operator.

I said, "Suppose that insomnia was due to a general state of poisoning, due to an inactive state of the bowels, for example." "O, yes," he said, "if he has autointoxication, why then something must be done for the bowels." "Well, can you cure inactive bowels? Can you cure constipation by means of suggestive therapeutics?" "O, yes, we have such cases all the time." Why," he said, "Doctor Worcester had a patient who had had no natural bowel movement for ten years; and he suggested the patient, and the condition was reversed so that the person had to come back for counter suggestion."

A Lot of Deception

I am only telling you of this as an actual experience of investigation of suggestive therapeutics. I am convinced that there is a whole lot of deception about it. I studied hypnotism with Charcot in Paris twenty-seven years ago, and I watched its effects very carefully.

I became thoroughly satisfied there is nothing of substantial or permanent value in it, and there is likely to be much harm.

When a man has insomnia, there is some reason for it. The reason in ninety-nine cases out of one hundred is those forty-two trillion or more germs down in his intestine that are making poisons that keep him awake. If you were to take several cups of strong tea at night, you could not sleep, because there is poison in the tea; and that poison keeps you awake; it will not let you sleep when you are tired. Similar poisons are produced in the intestine, and are thrown into the blood, irritating the brain and keeping it active when you want it to stop and rest.

Suggestions Do Not Effect Cures

What is the use of putting him to sleep by suggestion in spite of those poisons? The next time he will not go to sleep if the suggestion is not there; the poisons are there keeping him awake. You might fool the man effectively a few times so he would go to sleep, but it is absolutely impossible that there should be any radical cure without removing the cause. Suggestive therapeutics reaches the cause only in a very few and exceptional cases. Once in a great while a man is sick because he worries, and suggestive therapeutics may help him to get rid of the worry. I remember a young man who was brought here by his father with a lizard in his stomach. He knew he had a lizard in his stomach. He had felt it come up in his throat and tickle him, and he actually reached its head with the end of his finger at one time. The poor fellow was thoroughly satisfied he had a lizard in his stomach, and he was nearly insane over it. Well, I had to take him up into the operating room and give him just a whiff of chloroform and make a scratch over his stomach with the tip of a little knife to convince him that the lizard was not there and he would not have any more trouble with it; and he did not. So we know that the imagination does do things for people.

Suggestive therapeutics is the right thing for that sort of subjects, but we do not see that kind of people here in this institution very often. Not one person in a thousand who comes here is frightened, scared by the ghosts of maladies which they do not have; such people are very rare; that kind of folks do not like the regimen we have here; they do not like the restrictions of this place. They prefer to be sick in some place where they do not have to work so hard; where they can be more comfortably sick than they can be here. Perhaps they have a good many of them in Boston. I really think that the Emmanuel movement is a very good thing for such people.

I Attended a Service in the Church

in Boston where this work is conducted. There were two or three thousand people present. There were about thirty women to one man in the audience. After the service I noticed the people were going upstairs, and I thought I would join the procession. I found an upper chamber fitted for refreshments and entertainment, and pretty soon some waiters came in with trays of coffee, chocolate, sandwiches, cake, and various things. The people stood around eating and seemed to enjoy themselves.

Pretty soon two gentlemen came out and

took their stand in different parts of the room. One was the principal minister, the other was his assistant. The moment they made their appearance, the ladies, most of whom were over forty, gathered about them and looked up into their faces and began whispering their troubles, trials, and tribulations. These gentlemen listened graciously, then said some pleasant words, and moved on to the next group. There were about twenty people gathered around them at a time, and I saw that there was really great need for this thing in Boston. I understood then the meaning of that text which refers to nursing fathers and mothers in Israel. I had known of nursing mothers before, but here were nursing fathers! There are evidently a large number of lone women in Boston, and elsewhere doubtless, who need coddling, and I think the Emmanuel movement is doing it.

I would not have spoken thus a few years ago, because I had great respect for that movement and a great interest in it, and we contemplated introducing it into the Battle Creek Sanitarium, when I met a gentleman who had been to Boston and studied the system and was undertaking to establish it in Chicago for the purpose of promoting right living and suggestive therapeutics. I asked him to tell me all about it. He said he could introduce it here, so I asked him to introduce it to me to start with; and he told me about putting people to sleep. "Well, now," I said, "suppose you do not succeed in putting the patient to sleep; or suppose he is sick, suffering pain, and you can not relieve him by suggestive therapeutics, what do you do then?" "Why, then," he said, "we try hypnotism." "Well," I said, "suppose hypnotism does not succeed, what then?" "Then," he said, "we fall back on prayer." "Well," I said,

"Why Not Pray in the First Place,

then, and save all that trouble and all that fibbing?"

This opened my eyes somewhat, and afterward I visited Boston and looked into the matter. To tell you the truth about it, I think it is a great failure. It does not reach the root of the trouble at all. It simply makes a man feel he is better when he is not any better. What good is it going to do to suggest to a man who has a coated tongue and a filthy condition of his alimentary canal which is swarming with bacteria, that there are no bacteria there? It simply puts him to sleep; it makes him think he is all right when he is not. Now, the thing we must do is to remove the causes of the difficulty; and when these are removed, we do not need any suggestion. When we remove the sources of the poisons that are making the man sick, then the man is well. The power that heals the man is in himself. The power that heals is within us; it is not in the doctor, nor in the air, nor in the baths, nor in the medicine, for that matter. "Cease to do evil and learn to do well," and when we follow this injunction there is a great divine healing Power within us that puts things right and restores us to our normal state.

Suggestions are profitable for those whose mental state needs correcting; and there are invalids who will be effectually cured by a change of their minds.

MEETING OF THE SANITARIUM

(Continued from page one)

by proxy or cumulate his votes.

Members Have Not Property Rights

The members which compose the constituency have no property rights or claims, and may be dismissed from the membership whenever their attitude makes it expedient that they should no longer continue with the Association. The institution has been promoted and built up to its present large proportions without any financial motive; the hope of profits and gain has never formed any consideration with those who have conducted its affairs. Its aim has been solely to bring together the most effectual means and methods for healing and preventing disease for purely humane considerations, and to disseminate the knowledge and experience gained in investigation and practice as widely as possible.

The fact is well known by all who have any practical knowledge in the matter, that the care and treatment of the sick according to humane and Christian principles is not attended with any prospects of financial gain. The hospitals of our own and other lands attest this truth. The only way that such an enterprise could be made to pay large returns would be by sacrificing the philanthropic spirit.

The Battle Creek Sanitarium has been able to pay its way and to build up for itself an extensive plant with a magnificent equipment of buildings and apparatus, without the aid of gifts and large endowments, by the way in which its affairs have been conducted. Those who have really stood under the institution have never taken anything like what would be considered fair remuneration for their services. In view of the sacred character of the work of caring for sick and suffering men and women, and the fact that many are poor and unable to pay the full value of the services they require, the labors of these men and women have been bestowed unselfishly for all these years, and for but a small portion of what their services would command in general practice.

The Aim is Charitable

Having to provide its facilities and improvements and carry on its investigations from its meager resources, the institution has always to struggle with debts in order to meet the constantly increasing demands upon it for enlargement and increased capacity. The managers have always contemplated a time when the debts would be so reduced as to enable them to devote more of their earnings to purely charitable work. It will be a happy day when the full ability of the great establishment can be devoted to the work of restoring and helping humanity in a way that is direct and more appreciable than in the past has been possible. The great fire of 1902 laid the main buildings in ashes and left the institution with some real estate on hand but without a dollar with which to re-instate itself in proper quarters.

The work of rebuilding was herculean in its aspects, and was only accomplished by divine assistance and the kindly co-operation of people who loved the place. Gradually the great debt is being reduced, and in the meantime the compassionate consideration of the poor is not forgotten, as reference to the following report will show.

The Thirteenth Annual Meeting

of the Michigan Sanitarium and Benevolent Association was held on June 30, and we append a résumé of the proceedings, together with the treasurer's report.

The president of the Association, Dr. J. H. Kellogg, occupied the chair. Most of the members being non-resident, there was not a large attendance, but as no particular number is required for the transaction of business, the usual business was proceeded with. Five trustees to fill vacancies were chosen to serve two years as follows: J. H. Kellogg, C. E. Stewart, G. H. Murphy, R. H. Harris, Geo. E. Judd.

The following members were nominated for election to the constituency of the American

Reduction in indebtedness and improvements for 1909 50,232.63
Present worth, Jan.

1, 1910\$1,021,850.78

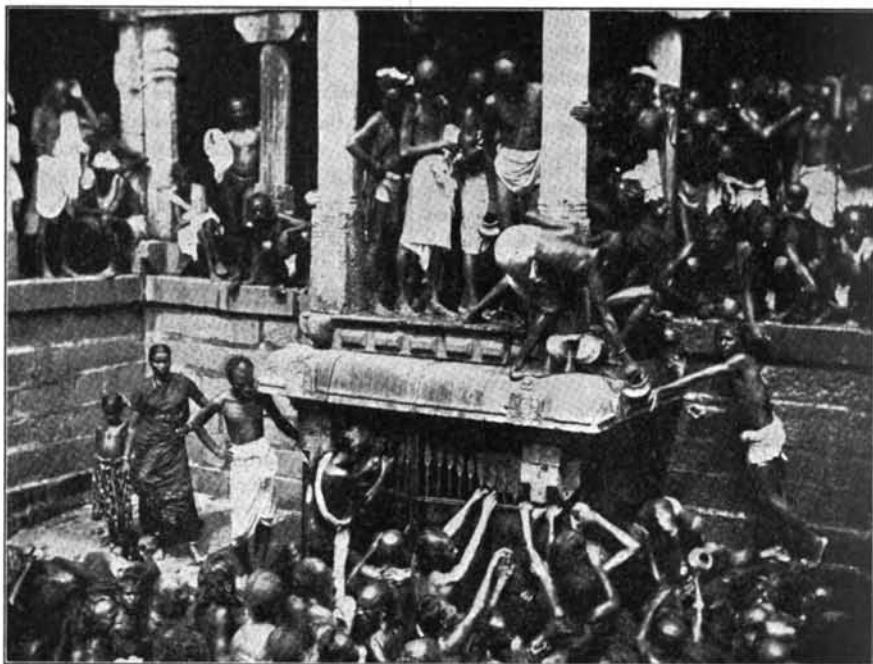
Total\$1,791,446.79

Amount expended in charity\$ 40,541.03
Discount allowed .. 70,571.72
This report was adopted.

President's Report

The president submitted a brief verbal report of the workings of the institution for the past year, from which we make the following excerpts:

"Without going into details, I think it is safe to say that the past year has been the most successful in the history of the institution. The patronage during this time has



THE POOR PEOPLE OF INDIA STRUGGLING FOR WATER HAVING A REPUTATION FOR WONDERFUL HEALING QUALITY THAT IS BEING DOLED OUT IN SMALL CUPFULS THROUGH THE BARRED GATE.

Medical Missionary College: For two years, David Paulson, R. H. Harris, B. N. Colver; for three years, E. L. Eggleston, Jesse Arthur, W. H. Riley.

The Treasurer's Report

was submitted by G. H. Murphy, as follows:

RESOURCES	
Real estate	\$1,057,808.22
B. C. San Co., Ltd., 5% first mortgage bonds	270,000.00
Personal property	256,545.52
Notes receivable	127,752.73
Accounts receivable	79,340.32
Total	\$1,791,446.79

LIABILITIES	
Sanitarium 5% gold bonds....	\$ 234,900.00
Notes payable	418,807.01
Accounts payable	115,889.00
Net worth Jan. 1, '09	\$971,618.15

been the largest and the influence of our work has been the most extensive that they have ever been. It is most gratifying to note that the principles for which the institution has stood for a generation, and the standard of living that it has held up, are coming into general recognition by intelligent people everywhere. It is noticeable that a larger proportion of our patrons have adopted the principles taught here than ever before. And it is particularly satisfactory to note the improvement made in health by those who have thus come into harmony with these truths.

"Another fact that has impressed me is that our patients do not stay here as long as they used to do. I have recently made some statistics in this matter, and find that the average time for a patient to remain here is four or five weeks, while formerly they would

(Continued on page five)

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UNIVERSITY OF MICHIGAN

The Battle Creek Idea

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VOL. III JULY 8, 1910 No. 31

"LIVE AND LET LIVE"

THIS trite old maxim is founded upon the true science of life. Selfishness does not tend to life, but to death and extinction. It is natural that all should desire to live; the love of life is a very essential condition to life. If people generally were courting death, and regarded life with indifference, it could have no attractions and there could be no inducements to make the most of life. So there is planted in every animate creature a love for life. The devil told one truth at least when he said, "All that a man hath will he give for his life."

The great difficulty with this instinctive love of life is that it manifests itself in disregard for the lives of those around us, and in an inordinate passion to grasp everything that comes within our reach, that we may incorporate it into our own lives, and thus make them as plethoric with gratification as possible. Men become gormands and gluttons in their inordinate desire to gratify themselves under the impression that life consists in getting as much gratification of the animal nature as possible. Under the same delusion men become drunkards, libertines, and criminals.

The desire to grasp everything that tends to gratify themselves leads men to devour and ruin their fellowmen. The same disposition manifests itself in the brutal prize-fight, of which this fair country has had recently the most shameless and awful example. It manifests itself in the base ball game when men, and women, too, become so lost to the sense of proper decency that they will abuse their visitors, browbeat them and humble them into the very dust with inhuman delight. The shoutings and excitement of such occasions would excite the envy of pandemonium. And the basis of it all is this unworthy and morbid ambition to triumph over the other man, and to gratify ourselves at his expense.

These things tend to heathenism and the demoralization of all that is precious in life. There is absolutely nothing in life that is too precious to be sacrificed to selfishness and the demand for selfish indulgence. The farther

we drift in that direction, that nearer we approach the gates of death and destruction. A proper regard for the welfare and happiness of those about us is the best condition for our own happiness. The less there is of strife in our lives, the more there is of unselfish endeavor and thoughtful consideration of others, the more life will have for every one of us.

A benevolent, peaceful spirit serves not only to make life sweeter, but it will add many days to the length of life. There is health and happiness in it. The best prescription we know of for those who love life is this one, written hundreds of years ago: "What man is he that desireth life, and loveth many days, that he may see good? Keep thy tongue from evil, and thy lips from speaking guile. Depart from evil, seek peace, and pursue it."

The constant fretting and friction of the individual who is engaged in a selfish strife with the world soon wears him out. The selfish, sordid man who lives supremely for himself will not live out half his days, nor enjoy even a half measure of life's sweetness.

THE FALSE HAIR BUSINESS

In a deeply interesting article in *McClure's* on the "Toilers of the Tenements," Elizabeth S. Sergeant has some things to say about the human hair trade that should have the attention of our ladies who now practice wearing ungainly bunches of dead people's hair:

A new and unfamiliar trade, which springs from the great and increasing demand by women for false hair, has invaded the tenements of the Jewish East Side during the last two years. This is the manufacture of "human hair" out of coarse black Chinese hair imported from the East. While it is not a home trade in the sense that flower and feather-making are home trades,—that is to say, it is not given out by the piece to individuals,—it is done in the midst of living tenements, in small kitchens and bedrooms turned into workshops. Since up to this time the trade has been carried on altogether in factories by hair-dressers. "human hair" making is not regulated by the tenement law.

The hair, according to one of the United States consular reports from Hong-Kong, is brought to Hong-Kong from the interior. It is either sold through Hong-Kong export houses to New York dealers, or bought by purchasing agents from New York. These large firms in New York sell the Chinese hair at two dollars a pound to small tenement manufacturers,—last year the price was only sixty-five cents a pound,—who, in turn, after its transformation into soft yellow or brown switches, resell to the large firms for six or eight dollars a pound. This hair is then distributed to the retail trade—hairdressers, department stores, etc. An ordinary switch weighing three ounces sells for from seven to twelve dollars at retail. The transformed Chinese hair precisely resembles the most glossy and wavy switches of Western hair,

and it is impossible for the average person to detect any difference between them.

The hair which arrives in Hong-Kong from the interior is supposed to be taken from the heads of the dead; much of it retains its roots, and seems to have been pulled out, not cut off. Living Chinamen are, of course, particularly averse to parting with their pig-tails.

Stories are current of people who have caught leprosy or bad skin diseases from the infected switches. In one authenticated case of leprosy in Brooklyn, the doctor asserts that the disease was caught from false hair. Although it is very difficult to disinfect hair adequately, bacteriological experts say that it is unlikely that leprosy is being brought from China in this way. There is a fair chance, however, that plague germs may be so transmitted, since in China the many bodies of the plague victims of all classes are thrown into the street and there rified by the dregs of the population. The boiling and chemical soaking of the Chinese hair during the process of transformation should effectually kill all the germs; on the other hand, dirty and clean hair are thoroughly mixed in the tenement work-rooms, and passed through the same combs.

After knocking in vain at a number of kitchen doors in a tenement house on East Sixteenth street, we found an apartment where the hair trade was in progress. The "boss," a Polish Jew who spoke little English, deputed his foreman, an intelligent boy of twenty, to explain the industry to us.

He took us first into a dark kitchen, where we were met by a sickening odor, subtly Oriental, and almost overpowering. Black hair seemed to fill the room. An enormous tub of curling tails of coal-black hair stood by the stove, on which dirty, boiling mixtures were simmering. Hair was soaking in tubs of bleach and dye. One corner of the room was heaped to the ceiling with long, thin packages of black hair, bearing the label of a Chinese export house. Our guide said: "It iss not human hair; it iss dead Chinese criminals' hair," and he pointed out to us that it was gray with dirt.

The first process, known as "heckling," was performed by a young boy in an ante-room lighted only by the distant kitchen window. The stiff hair, just as it came from the package, was combed into lengths—"ends to ends and roots to roots," as he said. The floor was ankle-deep in combings and dirt. The lengths thus obtained were then wound tightly on sticks like old-fashioned curling sticks, tied securely, and boiled five or six hours to make them curly. The hair, indeed, comes out of the boiling with a well set "wave," which outlasts the various processes that follow—the bleaching in a solution of hydrogen peroxid and ammonia, and the dyeing, usually "medium brown."

The hair is then ready for "drawing" in the back room. Two boys stood at the tables here, "drawing" or pulling the hair again and again through heavy spiked metal combs, to make it soft and shiny, and arranging it in even lengths. These lengths were carried by the "boss" into a fourth small room, lighted only by one window, where eight girls were making up the hair into switches.

The manufacture of human hair is one of the worst types of industry carried on in the tenements. It is revolting and dangerous from the standpoint of health, and yet is not reached by the law regulating tenement manufacture, because it is not one of the list of articles named in that law.

MEETING OF THE SANITARIUM

(Continued from page three)

remain about as many months. This is not because they are dissatisfied and so go away, but because satisfactory results are so much more quickly reached. Our system is more nearly perfect, our methods are more positive, direct and definite.

"There is a constant increase in the number of influential friends who are ready and willing to stand by the work here and who give it their hearty endorsement.

"Since our last meeting a settlement of the famous tax case has been effected. This was brought about by means of a compromise by which the institution was able to preserve its legal status as a charitable and benevolent work. The city reduced its claims very greatly, and exempted the working portion of our plant from taxation, while the Sanitarium granted concessions that were satisfactory to the authorities; and so what we believe to be a good and friendly solution of the matter has been reached, much to the gratification of all concerned."

A resolution calling upon the members of Congress from Michigan to favor the adoption of the pending bill for the establishment of a governmental department of health was adopted. The nature of this bill was set forth by the Chairman. No little opposition is being manifested by parties whose lucrative business is likely to be interfered with.

The meeting then adjourned without date.

NERVOUS EXHAUSTION

(Continued from page one)

this complaint in those who are properly prepared for it. These mental causes never produce any organic disease of the nervous system, or if they do they usually act in conjunction with other causes, or they produce it after they have acted for a long time and have in some way deranged the nutrition of the body. As a rule we do not have any organic disease of the nervous system from any anxiety or worry or any mental cause.

In considering the cause of any disease, first of all we have the personal equation of the individual. We all have a certain amount of vital force, and that is what we may call our vital coefficient. Then, there is some disease that is acting upon the individual, in one case neurasthenia, and in another person perhaps hysteria, and in another something else. And this personal equation of health or vigor is really a very important factor in considering the causation of disease. And heredity is largely responsible for this personal equation.

Poisons a Cause

Another class of exciting causes are poisons—poisons that are taken into the body, and poisons that are generated in the body; and, further, certain acute infections. First of all are the poisons that are taken into the body. These are represented by alcohol, tobacco, by drugs, and tea and coffee. Alcohol,

as we all know, is responsible for a great many organic diseases of the nervous system, arteriosclerosis (hardening of the arteries), which will lead up to apoplexy or some other form of paralysis. Then quite a large number of mental disorders, including different forms of insanity, are caused by alcohol. But besides these, alcohol also causes nervous exhaustion. Men who have neurasthenia are very likely to be men who are not very hard drinkers; they drink a little every day, but they drink for weeks and months and years, and they get nervous exhaustion. I have seen quite a number of cases of this kind coming from the prolonged use of alcoholic liquors.

The nicotine in tobacco is a poison, and when taken into the body impairs the health, the nutrition, the nerves, and causes nervous exhaustion. I have seen quite a good many cases of that kind that I am sure were due to the excessive use of tobacco. And I am not giving you my opinion alone on this; it is the opinion of many other men who have had the opportunity to observe and study these cases. Nicotin in tobacco is really one of the most toxic substances one can take into the body. One reason, I suppose, why tobacco does not do more harm is that the body becomes accustomed to it; and, second, the body does not get very large doses of it as it is generally used. Of course the more tobacco used, the more harm is done. Men with neurasthenia from the use of tobacco have a fine tremor in their hands, do not sleep well nights; they are depressed mentally, irritable, and have a long list of the symptoms of this disease.

And then There are Drugs,

the metallic poisons, like lead and mercury; and these when used to excess produce nervous exhaustion. Cocaine, and the hypnotics, and bromides, etc., when used for a long time, produce weakness of the nervous system, which shows itself in a large number of symptoms of nervous exhaustion. Tea and coffee, perhaps, could hardly be called poisons, but they contain caffeine and thein, both of which are unwholesome, at least, and irritate the nervous system to a greater or less degree.

Then there are poisons that are generated within the body. These are of two classes: first, those produced by bacteria which get into the intestines and grow and develop there and produce poisons. Metchnikoff, the successor of Pasteur, claims that as one grows older these germs become more numerous in the lower bowel, where they grow and multiply, producing poisons by their activity on the food substances taken into the stomach, and these are absorbed into the blood stream and are carried to the nervous system, and they irritate the nervous system and produce neurasthenia. These poisons produced by bacteria are chemical poisons, they are not the germs themselves; the germs are microscopical plants that remain inside of the bowel. A germ is a plant. Many people think a germ is an animal. It is a plant, always a plant; not an animal, but a vegetable.

Then we have another class of poisons produced in the body by changes in the tissues. Chemical changes are going on in our

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— VIA —

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bodies all the time—in our muscles, in our brains, and throughout our bodies. Now, in these chemical changes substances are broken down; the more complex organic substances are broken down to simple substances, and waste matter is formed, and these waste substances are carried out of the body by way of the lungs, the kidneys and the skin. If these eliminating organs do not do their duty, the wastes are retained in the body and irritate the nerves, in very much the same way as the poisons that are formed in the intestines. So, then, these two kinds of poisons that are generated in the body, one in the intestines and the other in the tissues themselves, may be factors in producing symptoms of neurasthenia.

Then we have the acute infections like typhoid fever, la grippe, malaria, measles, etc., which are caused by special germs in the body, and they grow there and multiply and produce toxins, which are retained in the body, and often cause symptoms of neurasthenia.

The diseases in other parts of the body, particularly diseases of the alimentary canal, stomach and intestine, are very often responsible for neurasthenia. I think disorders of the digestive tract are more often the cause than diseases of any other organ.

A very common cause of neurasthenia or nervous break-down is found in a man's business relations, together with his daily habits. He is perhaps of a nervous temperament, is ambitious, prominent in business, uses tobacco and alcohol to some extent, is generally careless of his diet, has undertaken heavy responsibilities, gone into debt, has his worries; and after a few years of this experience finds himself in a state of nervous break-down. He is easily disturbed, does not sleep well, loses interest in his business and in life in general, is depressed and discovers a lot of symptoms which trouble him, and so he sinks into this unfortunate condition which we call neurasthenia. There are many other causes and symptoms besides those I have enumerated.

What is to be Done?

But the question is, What are we going to do for the neurasthenic? Here is a disease with a long list of symptoms, every organ in the body may be affected in a functional way. The nervous system is irritable and weak. Naturally the nerve cells of a man who works through the day are exhausted at night, and these cells are more or less irregular and are smaller than in the morning, and possess fewer granules, but after a night's rest these cells are restored in size, and in number and in granules, and thus the individual is in good shape for another day's work. But the man who has neurasthenia has lost his ability to restore his nervous condition. The system runs down day after day, week after week, the man becomes easily wearied and finds no special relief in sleep.

The patient should have a very thorough examination by his physician. Every organ of the body should be examined, and one feature of the thorough examination is to restore the confidence of the patient and thus improve his mental condition, because he is full of morbid fears which need to be allayed.

Neurasthenia is very seldom fatal. I do not think that I ever saw a case terminate fatally. The symptoms are usually of a chronic character, but if they can have proper treatment, with rest and quietness, and proper nourishment for the purpose of rebuilding and strengthening the system, those who suffer with this trouble nearly all get well. They pass, as you might say, through the valley of death. They have had the experience, but they do not die. They profit by their experience and as a rule learn to live more carefully. They learn their limitations, and learn to be careful of their diet, exercise, and sleep, and by living careful lives are able to do good work and to live to a good old age. It is a depressing disease while it is on, one which often causes great alarm, but it may be overcome with patient effort. The better way is to avoid all causes and so escape the unhappy experience.

LIVING ABOVE OUR TROUBLES

THERE is a strain of profound philosophy interwoven with the folly of Christian Science, so called, that is worthy of the thoughtful attention of the dwellers upon earth. Man is a composite being, possessed of two natures, which, while more or less interdependent, are distinct, and in many respects widely different. Primarily, by creation and in physical conditions, mankind are animals. But it is altogether belittling and inadequate to speak of men as animals, or to regard mankind as simply belonging to the animal kingdom. The little German boy was quite right when he answered the Kaiser's question by saying that the emperor belonged, not to the animal kingdom, but to the kingdom of God.

The natural or animal man is the "out-

ward man," in Scriptural term, and the spiritual and godlike man is the "inner man." The outward man is brought into contact with the wear and roughness of life, and is subject to its ills and vicissitudes, to its pain, weakness, and weariness, to sickness, and at last to death. But the spiritual man is not dependent upon the contingencies that await the natural or outward man, and it is possible for us to live quite apart from the peculiar conditions that may attend the physical life. Whatever good there may be in the cult referred to above consists largely in its success in inducing people to recognize this fact, and to avail themselves of it.

We have all seen wonderful examples of long-suffering invalidism in the which the afflicted one lived a happy, useful, and truly noble life. An atmosphere of peace surrounded them and made itself felt upon all who came within the range of their influence. Their afflictions limited their physical activities, and their pain left its mark upon their outward features, but the spirit remained untouched and free. We have admired what we called the fortitude of the individual, but it was more correctly the triumph of the soul above the weakness of the body; the survival of the spirit while the outward man was brought under the ban of infirmity.

We are too much given to paying all our attention to the demands of our natural man. We should not be unmindful of the wants and actual requirements of our earthly house. It is for our highest interest that we keep this beautiful dwelling in the best of repair and in the most favorable condition. Our mental and spiritual state is not altogether independent of our physical state, and yet the danger is that we shall allow the physical demands to absorb our attention, and after a long course of gratification and seeking to meet these demands as they come along

THE MEDICAL MISSIONARY

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Sanitarium,

Battle Creek, Mich.

in rapid succession, we shall have worn ourselves out in a vain attempt to satisfy the cravings of the body for this and that, and find ourselves victims of our own folly. There is a higher plane upon which intelligent people should live.

We should be sufficiently strong in our spiritual nature not to be dominated by the animal propensities; we should assert our heavenly birthright and calling as the children of God, and not live as low-down dwellers of a mundane world, which is not after all our home. The troubles of this world are temporary, our higher interests are eternal, and if we live in view of that fact we shall be able to get and to hold many of our troubles under our feet, and not allow them to assume the uppermost place in our minds. To do this would do much to alleviate the bitterness of suffering that we may be called upon to bear, and would also enable us to successfully ignore many of the lesser ills with which we are wont to pester ourselves and our doctors.

THE FIRST ANNUAL MEETING OF THE HEALTH AND EFFICIENCY LEAGUE OF AMERICA

By invitation of Dean Vincent, president of the Chicago Corporation, the Health and Efficiency League of America will hold its first annual meeting at the Chautauqua Assembly grounds, July 13, 14 and 15.

Mr. Fletcher and other eminent health teachers will be present to lead in the discussion of various practical questions in relation to health and efficiency.

All members of the Health and Efficiency League of America are invited to be present and bring their friends.—J. H. K.

It is stated in published dispatches that over fifteen million dollars are annually poured into the coffers of those who exploit fake "consumption cures." This is according to the statement issued by the association for the study and prevention of tuberculosis. In addition to this, the report states that the victims who pay this money earn nothing and are often injured permanently and deprived of their possible chance of recovery.

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ARRIVALS

FOLLOWING is the list of arrivals at the Battle Creek Sanitarium for the week ending July 3: N. E. Burt, City; A. Holman and wife, Ga.; Mrs. H. W. Burnett, Ky.; Dave Davis and wife, La.; N. S. Florshiem and Jacob Wise, La.; Isadore Cyr, Mich.; Mrs. L. E. McBride, Miss Jennie McBride, Texas; Wilbur F. Crafts, Washington, D. C.; W. S. Tuell, Chicago; M. W. Ferguson and family, Ia.; Mrs. G. G. Gibbons and Miss Gibbons, Texas; W. M. Coral, Indianapolis; Mrs. A. Darguante, Neb.; Frances G. Shanklin, Ind.; Wm. N. Fox, Ind.; Fannie Moss, Colo.; Mrs. M. J. Nelson, Ind.; J. J. Nathan, Tex.; Mrs. O. Hack, Mich.; Edward R. Meek, Tex.; J. W. Wolfenstetter, Chicago; F. W. Colmar and wife, W. Va.; J. Cald-

well Robertson and Miss Marjorie Robertson, S. C.; Mrs. S. K. Armstrong and Prof. E. S. Armstrong, Philadelphia; A. E. Waggoner and wife, O.; H. M. Brice and wife, Ind.; Mrs. J. L. Covin, Ind.; Mrs. W. D. Bores, Ia.; Miss Louise Baxter, Ill.; H. W. Aleshire, W. Va.; R. E. O'Connor, Ky.; Mr. and Mrs. Olin J. Sweet, Ia.; Mrs. C. A. Barker, Ill.; Mrs. C. A. Barber, Ill.; Mrs. W. C. Coles, Ga.; W. L. Mills, Calif.; F. S. Colvin, Ohio; Mrs. J. J. Newberry, New York City; Miss Helen L. Homb, Pa.; Bettie K. Starke, W. Va.; A. S. Thomas, O.; Harry A. Richardson, Mich.; W. S. Sayles, wife and daughter, Mich.; Joe Zork, Tex.; H. E. Steele, Tenn.; W. W. Newman, wife and child, Okla.; Pauline D. Verger, Cincinnati; Wm. C. Hamilton, Pittsburg; D. L. Spooner, N. J.; Mrs. Clara A. Gordon, N. Y.; Miss Emma Barry,



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News and Personals

Over two hundred guests registered at the Sanitarium desk last week.

Mr. D. Shapiro and family, of New York City, are with us again, for the summer months.

Mrs. J. A. Fort and son, and Mrs. W. B. Swearingen, of Bartow, Fla., are among the new arrivals at the Sanitarium.

Miss Nellie A. Cole, missionary from Trebizond, Turkey, has entered the institution for a course of rest and treatment.

Rev. E. L. Humphrey, a returned missionary from Porto Rico, accompanied by his wife, is taking rest and treatment in the institution.

Mr. and Mrs. Silva Heimann, of San Antonio, Texas, old friends and patients at the Sanitarium, are spending a few weeks with us.

Mrs. Jas. N. Breckenridge and children are visiting the former's parents, Col. A. B. Schauerte and wife, who are stopping at the Sanitarium for the summer.

Mrs. B. Brody, of Des Moines, Ia., a frequent visitor at the Sanitarium, is again resting in the institution. She is accompanied by her granddaughter, Miss Jennie Brody.

Mrs. R. M. Cralle and son, of Groesbeck, Texas, frequent visitors at the Sanitarium,

have returned to spend the summer, bringing with them Miss Eva Anglin, of the same place.

The "Fourth" was spent very quietly by the Sanitarium family, most of whom remained at the institution, though quite a number resorted to some of the lakes in the vicinity. In the city a very quiet day was spent, the absence of violent explosives being modified by only an occasional "bang."

One of the speakers at the Christian Endeavor Convention was Major J. H. Cole, of Adrian, who led the devotional services. No man is more widely known and loved in Christian circles than is Major Cole. His labors as evangelist have been very extensive in this country and England. He was a welcome guest of the Sanitarium.

It has been arranged that on the evening of July 12 Judge Wesley Owen, of the U. S. Supreme Court, from the Canal Zone, will give in the gymnasium an illustrated lecture on the Panama Canal and the Zone. The Judge has a large number of beautiful slides and is abundantly qualified to deliver a most instructive and interesting address. The proceeds are for the Christian Endeavor Society of the Sanitarium.

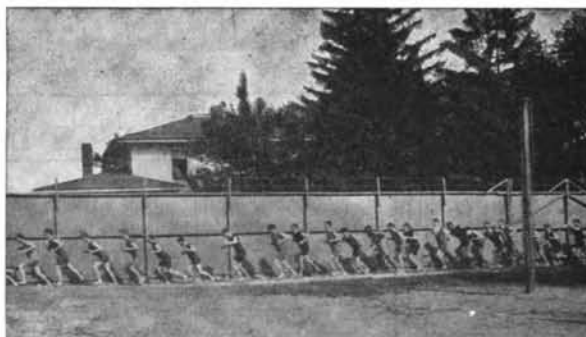
On the evening of June 30 the State Convention of Christian Endeavor opened its annual meeting in Battle Creek with a reception, banquet and chapel service at the Sanitarium. The meeting was under the charge of the president, Dr. C. H. Hubbell, of Detroit, and several speakers of prominence were in attendance. The whole evening passed very pleasantly to all concerned. The delegates were the guests of the Sanitarium society and Doctor Kellogg.

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THE BATTLE CREEK IDEA

Vol. III No. 32

BATTLE CREEK, MICH., JULY 15, 1910

Price 2 Cents

Five Vital Fives of Good Living

Striking Division of the Art of Physical
Existence into Five Sections of
Five Departments

THE art of living may for convenience of study be divided into five great sections, each of which naturally divides itself into five features. These sections are as follows: Five natural senses; five bodily requirements; five steps in nutrition; five food elements; five agents of digestion.

The five natural or physical senses are stated to be: seeing, hearing, feeling, tasting, smelling. These senses form the medium of communicating and obtaining knowledge. They are the means by which the individual maintains a connection with other individuals and with the world in which he is situated. A person deprived of any one or more of these senses is said to be defective, and is so to a certain degree, though his lack of one or two of the senses may be measurably made up by the special activity of the others. Special organs are provided for each of these senses, and they constitute, if we may say it, the most wonderful parts of the human body.

SWEDISH MOVEMENTS-- MANUAL AND MECHANICAL

The Use of Systematic Muscular Exercise
in Therapeutics as Practiced at
the Sanitarium

THE idea of utilizing muscular exercise as a means of correcting abnormal or diseased conditions originated in Sweden over a cent-

Flesh Not a Wholesome Food

As Shown in a Lecture at the Sanitarium
by Dr. J. H. Kellogg

THE question was recently asked me, "Why do you consider meat an unwholesome article of food?" Now, I confess that I am ambi-



"FOR STRENGTH AND BEAUTY"

The Five Bodily Requirements

are: air, water, food, clothing, housing. These are placed in the order of their importance and immediate requirements. And we find that, providentially, they rank in
(Continued on page four)

ury ago. This statement no doubt deserves a modification by saying that the modern use of this means originated thus, for it seems to be very clear that the idea existed in tangible form in China 2,000 years ago. An an-
(Continued on page three)

tious to convert every man and woman who comes to this institution from the habit of flesh-eating; and I take some satisfaction in the fact that in the course of my life I have shown a good many meat eaters the error of their ways. And I think I may speak with some authority on this subject, for the reason that I have put the matter to a long and thorough test.

When I was a lad I read in a work on comparative anatomy a statement by Professor Cuvier, the great French comparative anatomist, which set me to thinking. The statement was this:

"Man is a Frugivorous Animal.

His natural diet is that of the ape, the chimpanzee, the orang-outang—the higher apes. These animals live upon fruits and nuts and soft grains." I said, If that be true, I am glad to know it. I am young, and it would be a good thing to try the experiment, to see how it works. It will not do any great harm anyhow, and I will try the experiment. So forty-four years ago I discarded flesh food, and have not eaten a pound of meat since.

At first, and for a good many years,

I Had Some Misgivings.

When I saw people about me eating large quantities of meat, and listened to the arguments that meat was necessary to make people strong, and recognized the fact that a handful of meat-eating Englishmen were able to control and rule millions of rice-eating Hindus, I sometimes had some misgivings. Especially was this so when the argument was raised that meat-eating was necessary to build up the blood, so as to fortify the body against disease; that non-flesh-eaters were more subject to tuberculosis or consumption than flesh-eaters. The claim was brought forward that cows are very subject to tuberculosis, while dogs are not, and I recognized the fact that people who were not flesh-eaters did sometimes die of tuberculosis. I knew that I had some hereditary predisposition in that direction; so I felt some misgivings about the matter, and for twenty years out of the forty-four I held myself in readiness to make a change the moment somebody would come to me and give me answers to my arguments, and satisfactory scientific evidence that I was wrong. But for the last twenty years or more I have considered myself thoroughly established in my position regarding flesh-eating, because I have seen all this time the scientific evidence piling up condemnation of the practice. The facts developed by the science of bacteriology, physiology, and chemistry have simply built a mountain of evidence that is absolutely unanswerable. I am going to give you just a few of these facts to-night.

In the first place, Cuvier showed that flesh-eating was unnatural, and this was his argument: If we are going to study a fossil animal, to ascertain what its habits of diet were, we compare the skeleton and its organs, so far as we can get them, and the teeth and the prehensile organs, the extremities, with those of animals whose habits are known. The same course would be indicated in the case of a live animal with whose habits we were not familiar.

Suppose we take a man, and consider that we have found him as a curiosity. And we ask, "What in the world are we going to feed him? He is a very interesting animal, and we want to keep him alive." So we take note of his eating and digestive apparatus:

Look at His Teeth.

He has four incisors in front; then on each side a pointed tooth; then on each side of those are two teeth with two points each, then beyond those are the multicuspids teeth, or the molars,—sixteen teeth in each jaw. Four incisors, two cuspids, four bicuspids, and six molars; they are all the same height, and are set closely together. Then look at a wolf's teeth. The wolf has six beautiful incisors in front that look very much like human teeth, but then those teeth that come next, the cuspid teeth, are long and have sharp points; they are twice as long as the other teeth, and they are set apart from the other teeth, so that they will have room to lap by; they are very useful in tearing flesh; then the molars are shaped just like saws.

Here is a Cow.

The cow has incisors in front in one jaw, and

none at all in the other jaw. There are molars behind, and those molars are made up of alternate plates,—instead of being covered with enamel, they are made up of alternate plates of enamel and bone. They have sharp, corrugated cutting surfaces on top, and they are very different from the teeth of a wolf or a dog. Then here is the horse. He has incisor teeth, cutting teeth, in front above and below; then he has some cuspid teeth on the side, called bridle teeth, that look very much like the dog's teeth, set a little apart from the others, too; then he has molars behind that are very much like the molars of the cow. None of these teeth look like a man's teeth.

Find an Orang-Outang,

examine his teeth, and we find he has four incisors in front just like those of the human teeth; on either side a cuspid tooth, exactly like those in the man's mouth, only they are a little longer, and are spread a little space from the other teeth; then the molars are exactly like those of the human jaw. So now we may know what to feed this creature; he has teeth like those of the orang-outang. Now we will watch this orang-outang and see what he eats. He climbs up the palm tree and shakes down a cocoanut, cracks it, scoops out the meat, and he thrives on it. Sometimes he digs down in the ground and finds a ground nut, and he nibbles that; and when the corn has reached the stage when the ears are fit for roasting, this orang-outang gets up a band of comrades, comes down to the cornfield, picks those ears of corn, passes them from one to another along the line away up into the woods, tossing the ears of corn from one to the other, and in that way robbing the cornfield when the corn is in the milk. So we conclude that the cocoanut, and other nuts, fruits of various sorts, and soft grains are the natural foods of this interesting creature we have discovered.

When we study man from that viewpoint, there is not left the least chance for doubt that man is a

Fruit- and Nut-Eating Animal;

that his diet is that of the chimpanzee, the orang-outang, and the other higher apes.

When the anatomist comes to examine man, he considers the alimentary canal. He compares the alimentary canals of the different animals with that of man. For instance, he measures the sheep, and finds its alimentary canal is eleven times as long as the sheep. He measures the dog, and finds his alimentary canal six times as long as the dog? He examines the alimentary canal of some of the carnivorous fishes, and finds it is just the length of the body. He examines the alimentary canal of the eagle that lives on meat, and finds it is very short. He examines the colon and the alimentary canal of cows, and finds that the alimentary canal of the cow, which lives on grass, is enormously long. He finds that the alimentary canal is always longer in animals that live on non-flesh foods, in the non-flesh eating animals, and that it is short in the flesh-eating animals. He sees that in the meat-eating animals the alimentary canal must be short, so that the remnants of the flesh can easily and

quickly escape from the body before they have time to decay.

Animals with long alimentary canals are short-lived when flesh enters into their diet. So we compare the carnivorous animals with alimentary canals one to six times the length of the body, the herbivorous animals with alimentary canals from ten to twenty times the length of the body, and the frugivorous animals with alimentary canals from eight to twelve times the length of the body.

In the class of carnivorous animals are the dog, the wolf, the cat, the lion, the leopard, and others. Among the herbivora, we have the ox, the sheep, the goat, etc. The frugivorous animals are represented by the higher apes of various sorts.

Let Us See Where Man Belongs.

We measure the alimentary canal of man and find it to be thirty feet long. Doctor Wiley stated recently that if we stopped eating meat, we would all become mollycoddles. Dr. Woods Hutchinson said something similar, and he showed up the absurdity of interdicting the use of flesh food by this argument: "Why," he said, "the man's diet is indicated by his alimentary canal. Carnivorous animals have short alimentary canals. Man's alimentary canal is thirty feet long, and he is six feet long, and that makes his alimentary canal only five times as long as his body; and that classes him with the carnivora." But the argument is unsound, as we shall see. To get the length of the dog, we measure from the end of his nose to the end of his backbone. That is the length which we compare with the length of his alimentary canal. But when Dr. Woods Hutchinson measured the man, he included his legs, and that makes him six feet long; whereas, if we measure the man as we do the dog, he is only three feet long; and that makes his alimentary canal ten to one of the length of his body, instead of five to one. And that puts man in the frugivorous class, where he belongs.

I think that is plain enough so you can all see it. I have found that same argument in medical books and works on diet, many times in the last thirty-five years, and it has always struck me as being a very good illustration of the superficial way in which writers upon diet have studied this question. It is evident that they are looking, not for real truth, but for something with which to bolster up the conventional practice.

Need for Progress

There is just as much need for progress and improvement in our habits of life, in our practices in relation to eating and drinking, as there is in other things; but somehow we have missed progress in this line; we have not been keeping up with the march of science, with the discoveries that have been made in these matters. The time has come when it is important that people should know the wonderful discoveries that have been made in these recent times.

We should find out what man ate when he was living in his great strength, in the glory of his pristine vigor in the forest—not as a poor, depreciated, degenerated savage, but as a man living under the best possible condi-

tions, in his most natural environment; and when we make that inquiry, we find, sure enough, that man then lives upon the things upon which the monkey lives, adding those things which can be rendered more digestible by means of cookery. The hard, dry cereals must be cooked to be readily digestible, and yet they are somewhat digestible, even if they are not cooked. Fruits are already digested, cooked and digested by the sun. That is why a man may take fruit, or fruit juices, with almost absolute impunity if he has a sound stomach, at all times, at any time, because they require no digestion. That is true of most fruits. Nuts are also very largely digested by the sun, and consist chiefly of protein and fat. The fat is emulsified and ready for very prompt and very quick digestion, and the protein is in a form which undergoes very quick and prompt digestion, if it is thoroughly masticated.

(To be continued)

SWEDISH MOVEMENTS

(Continued from page one)

cient Chinese volume, a copy of which is now in possession of the superintendent of the Sanitarium, is devoted to this subject, and from the illustrations we readily form the conclusion that the system as taught in that old book does not materially differ from the modern development of the system of Swedish movements. Lieutenant Ling, of the Swedish army, at the period mentioned, conceived the project of putting the practice into systematic form. He probably obtained his initiative from a French translation of the old Chinese book. The undertaking became quite popular in Sweden, where it has been more thoroughly developed than elsewhere, a fact that has given to Sweden the right to christen the system with her own name.

The advantages to be derived from the practice of these movements are obvious and varied, and in many cases they are marked and great. Not only is the muscular system of the human body affected by this treatment, but the circulatory and nervous systems, and the digestive apparatus as well, receive great benefit from well-directed application of this system.

The Battle Creek Sanitarium, always on the alert to secure and appropriate the most effectual means for combating disease, early saw the merits of this system and incorporated it in their institution. For over thirty years the system has been practiced here. The superintendent visited Stockholm for the purpose of studying the matter at first hand, and there took his instruction from one of the great teachers. Skilful practitioners from Sweden have been employed, and the aim has been to develop a thoroughly scientific application of the system.

Harmful Postures

Much harm is done by the unnatural postures which are assumed by individuals in sitting, and in various employments, especially those of a sedentary character. Many of the prevalent habits serve to debilitate the muscles of the trunk, which are intended to support the viscera, resulting in a prolapsed state of the internal organs, and various de-

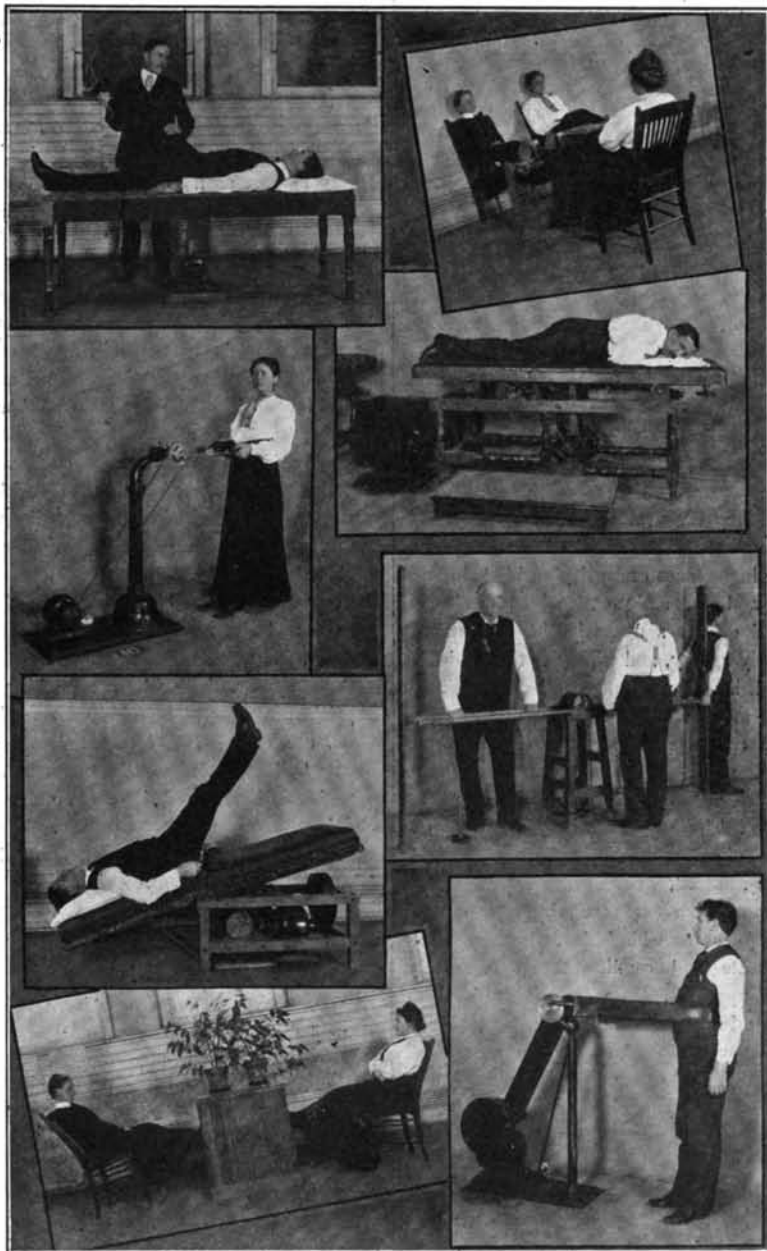
formities which affect the health. Swedish gymnastics are designed to correct these evils.

The administration of these movements is divided into two departments, known as manual and mechanical. In the department of manual Swedish movements the exercise is administered under a skilled operator, either voluntarily by the patient, or by the operator's hands or assistance. Under this régime the muscles of the limbs or trunk are

limbs. Any deformity or curvature is treated by such exercise as will strengthen the weakened muscles.

Machinery Utilized

It is often the case that this involuntary exercise can be better administered by the aid of machinery; and to make this practicable it was necessary to invent and procure a large assortment of mechanical con-



MECHANOTHERAPY.

trained and brought up to the normal condition by repeated manipulation. It is surprising to observe the marked results that attend this kind of treatment. Many of the exercises call for vigorous muscular exercise, and the system has been so perfected that every muscle of the body may be operated upon. The exercise of the limbs strengthens the trunk muscles as well as those of the

trivances which, being driven by electrical power, serve to stimulate the circulation of the blood and nervous activity for the purpose of building up the muscles. These machines consist chiefly of different vibratory appliances adapted to the wants of the parts they are designed to serve.

One of these is designed to aid in the pro-

(Continued on page four)

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CORRELATED REFORMS

Food reform is the basis of all physical reform. And physical reforms follow in logical, or perhaps, in natural sequence. The appetite is the natural guide in the selection and eating of food. A correct appetite has associated with the gustatory sensation an element of intelligent discernment and conscientious principle. We are not satisfied that so important a function as that of feeding the body should be left under the control of gust alone, since that is a thing easily influenced by the prevailing mental state and environments. When an individual awakens to the importance of rectifying his habits of eating and gives serious attention to that matter and evinces a determination to conform willingly, gladly, and wholly to that which is right, it is evidence that conscience and intelligence are at work. And when that man has won a complete victory over the perverted appetite so that he holds the supremacy over his evil habits of feeding, and is able to keep them in subjection, he is nearly sure to march on until the field is clear, and a complete victory is attained.

It would be a very rare thing to see a man who rejects from his bill of fare the harmful meats and condiments so frequently found upon the tables of civilization, indulging in intoxicating liquors or tobacco. There may be found such an anomaly, but, personally, we have never yet seen a tobacco-using or whisky-drinking vegetarian. And should such a monstrosity exist, that would not overturn the theory that temperance reform begins rightfully and naturally with the diet, and that it logically leads to temperance in all things.

Mr. Horace Fletcher's teachings and experience prove this. He has not undertaken to carry the work of reform any farther or any faster than he was prompted to do by his appetite. When we first saw him, that work had not proceeded to anywhere near the point it has now reached. He is following the guidance of instinct, but we apprehend that instinct is itself controlled or influenced

very largely by an enlightened and awakened conscience which step by step leads upward, bringing these reforms into sight.

Another case in point is the origin of the vegetarian movement. One hundred years ago the man who led to the formation of an organized society of vegetarians in England led the same company to adopt the principles of total abstinence from all intoxicants. Very naturally so. Established in this country in 1817, the same thing occurred, and here the pioneer vegetarian society became the pioneer temperance organization. And in all these ranks, as a natural sequence, war is waged against tobacco, and all physical obliquity as fast as it is discerned.

Nor does the matter rest there, for moral righteousness follows in the same train. The awakened conscience is by no means satisfied with physical rectitude; the very recognition of moral obligation in the matters of temperance leads to recognition of moral reformation in other directions. Spirituality is also included in the same train of thought and reform. True, all do not reach the same conclusions or attain the same point in moral and spiritual matters, but it will go without controversy that a reform that begins with the appetite, and brings under discipline the habits of eating will, unless checked, renovate the entire man, place his feet upon a higher ground, and give an upward trend to his entire life.

Consequently, those who are working for physical reform, and especially for food reform, are aiming at all true reform; and those who have had the courage to take their appetites in hand and bring them under control, have fought and won the first and greatest battle with perverted nature, and have taken the first step in all upright living.

SWEDISH MOVEMENTS

(Continued from page three)

cess of digestion by a manipulation of the stomach and the abdominal walls, thus imparting motility to the stomach and cultivating the abdominal muscles. This is a table upon which the patient lies face downward while a set of arms provided with rounded and blunt ends are operated by cams in a kneading motion, the patient being moved gently back and forth by the motion of the table.

A means for exercising the abdominal viscera and the attending muscles is a wide band of webbing, each end of which is attached to a crank wheel, which pulls the ends of the band alternately. The hand is passed across the abdomen or the back of the patient and set in motion by the operator, and the motion produces a gentle and yet most thorough manipulation of the parts.

Rapid and gentle vibratory movements are provided for the feet and hands, and indeed

for the entire body. These movements serve to set the vital forces at work with renewed vigor. The circulation is enlivened, new supplies of blood are sent out to the extremities, and the immediate result is a restful, soothing sensation, while permanent good is obtained in the better nutrition of the muscles affected.

A tilting machine throws the head downward and the feet upward, and vice versa,—the object of this movement being the effect upon the vasomotor centers of the abdominal region.

These exercises, manual and mechanical, are of special benefit for persons of sedentary habits, being designed to take the place of the exercises that every person ought to take in his daily life, and would take if his life were what it was designed to be. But the requirements of modern business and occupations, the conventionalities of our society, prevent many people from living naturally. The exercises best suited to each individual are prescribed by the doctor after a careful examination of the patient's physical condition.

FIVE VITAL FIVES OF LIVING

(Continued from page one)

abundance and accessibility in the same way. Air is required momentarily. Night and day, each hour and each minute, we must have a constant supply of life-giving air. No one, rich or poor, sick or well, can possibly exist for more than a very few seconds without this commodity. Consequently, we find ourselves enveloped in air, and it presses around us and into us with a pressure of fifteen pounds per square inch. Extraordinary pains must be taken to shut off the supply of air, and it comes to all without effort, without cost, and it would be impossible for a person to suppress the act of breathing it in without extraneous help. All we need to do in the matter of air supply is to see that no contaminations are permitted to defile and vitiate the element in which we live, and which is so necessary to our existence.

Our next most constant want is water. Three-fourths of the weight of the human body is made up of this most necessary fluid. The demand is not so immediate and constant as for air, but comes next in order, since we can subsist longer without food than without water. Consequently, we are providentially supplied in proportion to our needs. Everywhere through our land are running streams, gushing springs, placid lakes, and abundant wells, and as if to supply any possible lack, the clouds pour down supplies of this vital fluid. So that, no matter how poor a man may be, he may, with a little effort on his part, secure an abundant supply of good water. This supply is not forced upon us as is the supply of air. The act of obtaining and drinking is wholly voluntary and requires a little effort, though not any great expense on our part. The greatest effort required of us is, perhaps, that of guarding the purity of the water supply, as, like the air, it is readily contaminated and may become the medium of disease as well as of life and nutrition.

Next to our demand for water comes

The Demand for Food.

This, again, is not so immediate and constant as the demand for water. One may exist not only for hours but for days and even weeks without food, but the proper nutrition of our bodies requires frequent and regular supplies of food. But as the exigency is not so immediate as in the case of air and water, so we find the supply a little further removed from our reach, and yet within the reach of all his creatures God has placed an abundant supply of food. To obtain it, however, requires more effort on our part than to obtain the first two necessities. Man must labor or pay for his food. "In the sweat of thy brow shalt thou eat bread," was the dictum of divine Wisdom many centuries ago. It is very unfortunate, however, that the food supply should ever be made a matter of speculative gain by men who seek to amass wealth out of other people's necessities. God intended that the food supply should be placed within comparatively easy reach of every one of his creatures. The birds and the beasts have to gather their food, and God designed that the human family should have the same privilege.

Coming down the scale another step, we find that clothing is regarded as a necessity, and in the greater part of the earth it is absolutely essential to the preservation of life, and modesty demands it; and yet the demand is not so imperative as the demand for food. Clothing may be modified to a greater degree or may be absent entirely, and yet persons exist by other artificial means of sustaining

the bodily warmth. Consequently, we find the source of clothing a little farther removed from our convenience than that of food. And yet the earth produces an abundant supply of clothing for all mankind, and Providence not only provided but intended that each one should have a comfortable share of this commodity.

When we speak of the matter of housing, that is even less imperative than the provision for clothing. The abodes of different classes of mankind vary greatly, but in all rigorous climates the matter of proper housing is one which requires intelligent consideration.

Nutrition

is one of the great sections of vital existence, a question which demands our careful and constant attention. The five steps of nutrition may be enumerated as, (1) the selection of food; (2) its preparation; (3) its serving; (4) eating; and (5) digestion. Every one of these steps deserves most careful thought and study. It is not possible in the limits of this article to treat the principles which should govern us in selecting food, in its cooking, and other preparation, in the serving of it upon our tables, in the method and manner of eating, and the conditions of good digestion. The columns of this paper are continually bearing information along these lines. The Battle Creek Sanitarium devotes a large portion of its energy to the elucidation and practical application of these important suggestions.

The Five Food Elements

consist of starch, sugar, protein, fats, and

salts. Each of these elements has its part in maintaining the body, and each individual needs an intelligent knowledge of the requirements of his body in regard to each of these elements. The preponderance of heat-producing elements over others, and the proper proportions of each should be observed in the selection, preparation, serving, and eating of the food.

Each of these food elements is met in the process of digestion by a peculiar digestive agent exactly adapted to the work of transforming that food element into living healthy tissue, and the process of digestion, though not dependent upon our volition, or under the control of our voluntary powers, is greatly aided and assisted by an intelligent co-operation on our part. In order that the body may be adequately nourished, the proper proportion of food elements must be procured, and in order that the work of digestion may be thoroughly done the body must be able to supply each of the digestive agents as they are required. And upon this function depends to a very large extent the preservation of health and efficiency.

The scope of this article is not to elaborate these subjects, which are often brought out in the discussions of this paper, but to call attention to the remarkable and harmonious classification of the great conditions of life, and how perfectly they have been adapted to our circumstances by a good and wise Providence.

When the Mill Works Too Slowly; or, The Treatment of Slow Digestion and Weak Motility of the Stomach

(From a lecture by Doctor Kellogg)

THE first and most important thing to do in all cases of slow digestion, is to chew. See that the food has been well prepared in the mouth before its entry into the stomach. Especially is this important in the digestion of starchy foods or carbohydrates, of which our natural diet should largely consist.

Starch digestion begins in the mouth, and the principal part of the work is done there. There is always saliva enough produced to digest the starchy foods if you get the full benefit of it.

Pawlow's Discoveries

Professor Pawlow, the famous physiologist of St. Petersburg, the man who has made those marvelous experiments with dogs, and has found out more things than the world ever knew before about digestion, discovered that thorough chewing of the food has the effect to cause the stomach to produce gastric juice in abundance. He also made the discovery that while the food is being chewed in the mouth the stomach pours out gastric juice. The most powerful, active and efficient gastric juice that the stomach is capable of making is secreted while the food is being chewed. Within five minutes after mastication begins, this juice is pouring out into the stomach; and that which is secreted later is nearly as valuable or as potent in its digestive qualities.

The habit of thorough mastication must be acquired through training. The majority of

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people are accustomed to swallowing food just as they swallow pills, as though the less they are chewed, the better; the more rapidly they swallow it, the more rapid and intense the sensation! But really, in order to get the full benefit of the flavor of food, it should be chewed very thoroughly and long; and not only this, but in this way alone can one get enough gastric juice to digest it in just the right time and in the right quantity.

Another very important factor is that the starchy foods should be well cooked. It is a good practice for every one, especially those with slow digestion, to begin the meal with a bowlful of dry toasted rice flakes or wheat flakes. If they are recently and well toasted, it will not be difficult to take them dry. A small amount of cream may be poured into the dish along the side, so as not to saturate the flakes, and a few drops only be dipped up

to buy some good unmixed, unadulterated wheat from a farmer who raised it, you are fortunate indeed, for flour is frequently adulterated and the cheaper grades are often mixed with the better brands and sold at a high price.

When yeast is mixed with the flour and the dough is set to rise, the germs begin to grow with great rapidity and multiply by the million; and the heat to which the bread is subjected in the oven is not sufficient to kill these germs. In this way, many different kinds of germs are introduced into the alimentary canal, and the intestine becomes infected through them by means of the yeast bread. The better way is to use bread a day old, cut it into thin slices, and put it into the oven until it is well browned all through, then the germs will have been destroyed and can not do any harm.

Along with raised breads, a person subject to slow gastric digestion should avoid the semi-cooked breakfast foods that are served up on the ordinary table, such as oatmeal that has been cooked half an hour, or the prepared cereals that are warranted to be "thoroughly cooked," but which have simply been exposed to steam, and warmed up a little with twenty minutes' subsequent cooking. Discard them all in favor of dry flakes which can be thoroughly masticated in the mouth, or for well baked zwieback. When taken in this form, bread can never enter the stomach in the form of bullets, because it will break up into minute particles which are easily digested.

Cold Water an Aid

Another thing which produces an increased flow of gastric juice and stimulates the stomach to action is cold water. Applied over the stomach, cold water will stimulate it just as when applied on the face it will stimulate the brain, or over the heart it will stimulate the heart. If some one should throw cold water down the back of your neck, it would cause you to take a deep breath quickly. In exactly the same way, when cold water is applied over the stomach, that organ is made to leap, as it were; it just springs to its work, vigorously making gastric juice. Indeed, the application of cold water to the surface of the body is one of the most powerful means of stimulating the activities of the stomach.

In these several ways may the "mill" which grinds our food and prepares it for absorption into our bodies, be assisted in its work. So long has the human machine been neglected, through so many generations has it been overworked and abused, that its various parts have become disabled and prematurely worn out; until, as one writer has remarked, the perfectly healthy human being is a thing of the past.



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with each spoonful of the dry flakes. You will find a couple of tablespoonfuls of cream or fruit juice will be sufficient to enable you to eat a whole dishful of flakes without difficulty. The chewing of the dry flakes will stimulate a greater flow of saliva.

Discard Fresh Bread

If you are afflicted with a seemingly lazy digestive apparatus, be sure to abstain from all kinds of raised bread, especially new bread. If you will discard baker's bread from your dietary entirely, you will be far better for so doing. The central portion of baker's bread is never well cooked. Only the crust is perfectly done, and even this is generally soaked up and is damp and tough so that it can not be easily chewed, but is simply broken up into small portions and swallowed like pills. A good base-ball can be made out of the center of an ordinary loaf of baker's bread. Such a ball, if thrown upon the floor, will bound up several feet. It can also be shot from a gun. In fact, I think the experiment was once made of making such a bullet and of shooting it through a board.

Another necessity for the thorough cooking of breads is the fact that flour always contains germs of various sorts. In fact, flour when it comes to you has a regular botanical garden of germs that have been gathered from various places. If you are able

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But in the light of modern science, and with the knowledge afforded to us in these enlightened days of research and investigation, much may be done. The important work of renovating and improving the workings of this most delicate and wonderful of constructions, the human machine, must belong though, not to the medical adviser or to the man of science, but to the individual most directly interested.

ARRIVALS

THE list of arrivals at the Battle Creek Sanitarium for the week ending July 10: D. M. Weaver, O.; H. L. Puchta, O.; Albert Schoenberger, New York City; Jeanne Pratt, Pa.; Mrs. D. M. Boe, Brooklyn; J. H. Norris, Boston; Rose E. Helm, Mich.; J. B. Minor, and L. H. Madden, wife and children, Texas; F. W. Halzgrafe, Ill.; E. E. Covert, N. W. Williamson, City; Mrs. Nellie Stevens, Ill.; Thos. Siehrs, Chicago; Miss Aline Bryarly, Ind.; Mrs. H. Recktenwall, Chicago; Mrs. E. C. Blackman and Miss C. H. Blackman, O.; Geo. D. Thomas, Ill.; S. McCormick, Ky.; Mrs. J. N. Porter and Misses Stella and Lillian Porter, Tex.; Pauline Reibestine, O.; W. E. McColl, Mo.; Mrs. Mollie Treadwell and S. C. Treadwell, Okla.; J. A. Halley, wife and son, W. Va.; Mrs. E. Long, Pa.; E. M. Downer, O.; J. R. Taylor, Chicago; Mrs. Mark Russell, Mich.; T. L. Wott, Ga.; Mrs. John Johnson, Tenn.; Mrs. R. F. Wembley, Tenn.; Mrs. Stewart Reed, W. Va.; Mrs. J. Douglass and daughter, Miss

Irene, Montreal; Leo Rosenthal, Chicago; J. L. Hanly, Mo.; F. A. Ditzer, O.; Mrs. A. N. Mex.; H. H. Topakyan and wife, Persia; Jas. McDonald and Margaret Cavanaugh, J. D. Huston, Tex.; Mrs. W. E. Nicoll, Mo.; Percy Chibbons, Ill.; Wm. Arnold, N. Y.; H. S. Reukert, wife and son, O.; L. W. Pine and J. J. Crawford and wife, O.; Mrs. G. B. Gose, Kans.; D. C. Gibbs, Mich.; F. B. Stoeltzing, Pa.; C. C. Bradley, Conn.; A. M. Davidson, Chicago; John Sterling, N. Y.; W. H. Wick, Syracuse; G. O. Crooks, City; T. A. Newton, and Mrs. A. S. Harrington, Ia.; Mrs. Anna Russel and Nellie Green, Chicago; Mrs. J. A. Henning, Ill.; Mrs. H. Smith, Chicago; Mrs. Wm. Redd and Mrs. Nina R. and Mary E. Southgate, Ala.; Mrs. B. B. Clarkson and Marion, Tex.; Lou D. Marrs, Tex.; Mrs. Digly, Toronto; Mr. and Mrs. Zon and child, Washington, D. C.; Mrs. A. E. Waggoner, O.; P. Harvey Middleton and wife, New York City; Elizabeth Mason, Ill.; M. Reese and wife, Ind.; Mrs. H. A. Perry, Chicago; Rose Cevate, Ind.; Laura E. Anderson, Cincinnati; Dora D. Nyers, Toronto; E. E. Andrews and Orpha Andrews, O.; W. E. Johnson, Jr., O.; Henry N. Earlwell, Mo.; Wm. Dill, Ark.; Chas. Ninman, Ala.; Mrs. J. W. Allen and Agnes, and Mrs. W. Taylor, Mo.; Wm. Matherson and wife, Tex.; Col. D. Greaves and son, Ark.; H. H. Albert, Ind.; Benj. Martin, wife and son, Okla.; John E. Biggs, wife and son, South Africa; Mrs. O. F. Mosser, Cleveland; Elizabeth Yoder, Ind.; Mr. and Mrs. R. L. Owens, O.; M. Bluestein and wife, La.; Mr. and Mrs. F. I. Goodenow, Mo.; Mabel Potter Daggett, New York City; Malcom Macbeth and Mrs.

Agnes P. Macbeth, Mo.; E. E. Beman, New York City; Frank McNamara and Vincent McNamara, O.; B. C. Stiekler and wife, Mrs. J. D. Springer and Miss Lulu Arford, Pa.; Wm. Rice, Ky.; Mr. and Mrs. Chas. Bronaugh, City; Mr. and Mrs. F. W. Bender and son, Neb.; H. Brinn, Tex.; Edw. Pfister, La.; Fred C. Weibert, La.; A. R. Bowdre and wife, Ark.; Geo. McCrar and wife, Manitoba; Miss S. B. Harrison, Fla.; Fannie E. Osborne, Mich.; Rose E. Helms, Mich.; R. Williamson, City; Edw. A. Richardson, Tenn.; S. J. Abegg, Wash.; Mr. and Mrs. Wm. Goodwin, Cleveland; E. G. Gibbons, Tex.; Miles W. Bullock and wife, Mich.; C. B. Holcomb, Ill.; W. I. Wallace and wife, Mo.; A. D. Dorman, Chicago; J. A. Kemp, Tex.; Mrs. R. Loeb and Florence, Ky.; F. J. McLean and Marjorie McLean, Wis.; W. J. Townsend, wife and son, Mr. and Mrs. R. E. Thomasson and Ben. R. Thomasson, Tex.; John P. Herriek, N. Y.; A. G. Adams, Indianapolis; A. J. Stewart and wife, Ind.; Buna E. Stabat, O.; A. Swedari and wife, Ill.; David H. Merrison, Pa.; Mary Sachis, Detroit; Horace Baker, Mo.; Mr. and Mrs. Jno. Wuckle, Mo.; A. M. Kauffman and wife, Tex.; C. L. Davis, Ind.; Mr. and Mrs. J. E. Scott, Indianapolis; J. B. Cranfill, Tex.; Mrs. Thos. Goggan, Tex.; R. C. Hamilton, Ill.; Edith Eldridge, Indianapolis; Mr. and Mrs. C. W. Webrink, Okla.; Mrs. Kate H. Palmer, O.; P. A. Thatcher and L. U. McFarland, Conn.; Mr. Strickel, Indianapolis; W. D. Boies, Ia.; H. D. Faxon and Fred R. Eurich, Mo.; E. C. Dennis, Chicago; F. C. Dragoo and A. C. Dragoo, Ind.; Louise McCullough and Charlotte Drygen, Ia.

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This course gives necessary instruction and training to prepare those who take it to fill positions as dietitians, lecturers, and demonstrators.

Details of courses are given *in extenso* in the Annual Announcement, which will be sent on application.

News and Personals

Mr. and Mrs. John E. Biggs and son Allan, of Cape Colony, South Africa, are taking rest and treatment in the institution.

Dr. Wm. W. Hastings, principal of the Sanitarium School of Physical Education, is attending the New York Chautauqua Assembly this week.

Miss Eva Evans, a graduate nurse, has returned to spend the summer at the Sanitarium, where she will assist with the work in Doctor Staines' office.

Prof. E. D. Kirby, principal of the Sanitarium Preparatory School, returned from a visit to Southern Kansas last week. The school resumes its work this week.

Mrs. Wm. Redd and daughter, and Mrs. Nina R. Southgate, of Birmingham, Ala., registered at the Sanitarium last week, and expect to remain the rest of the summer.

The list of arrivals as shown on the Sanitarium register for the past week numbered 228. Those of Wednesday and Saturday numbered forty-seven and forty-nine respectively.

Mr. H. H. Topakyan, Consul General of Persia, in New York, accompanied by his wife, was a guest at the Sanitarium for a short time during the past week. Having learned of the Sanitarium in his native land, this gentleman improved the opportunity to make a brief visit for the purpose of personal observation.

Dr. J. H. Kellogg lectured at the Winona Lake Chautauqua Assembly on the 7th inst., on the subject of "The New Hygiene." Great enthusiasm was elicited. The interest of the hearers was such that the lecture was followed by an after meeting, where many questions were submitted and answered. A large number of members were obtained for the Health and Efficiency League.

Miss Lenna F. Cooper, principal of the Sanitarium School of Domestic Science and Household Economics, has just returned from Lake Placid, N. Y., where she has been in attendance upon a sectional convention of the Domestic Science Association of the United States, having for special consideration institutional work. Miss Cooper reports a very interesting and profitable meeting.

Dr. J. H. Kellogg and several members of his family left us on the evening of the 10th for a week's sojourn at the Chautauqua Assembly. This week of the Assembly is devoted to the subject of health and efficiency, and a large number of persons prominent in this line of work will be in attendance, including Mr. Fletcher, Professor Fisher, and many others. Doctor Kellogg is to lecture before the Assembly on the 13th.

The Battle Creek Chautauqua opens its annual assembly this year on Friday evening of this week on the grounds occupied the last

two seasons, at the Sanitarium villa, Gogua Lake. The program has been well arranged, and all the speakers and other talent advertised are expected to be on hand. It stands every one of our citizens in hand to show a hearty appreciation of the benefits extended to our community by this enterprise, and the prospects are good for a large attendance. Procure a program and note the excellent things provided.

It is stated in published dispatches that over fifteen million dollars are annually poured into the coffers of those who exploit fake "consumption cures." This is according to the statement issued by the association for the study and prevention of tuberculosis. In addition to this, the report states that the victims who pay this money gain nothing and are often injured permanently and deprived of their possible chance of recovery.



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IN arranging your summer vacation be sure that part of it, at least, is spent on the Great Lakes. It is the most pleasant and economical trip in America and you will enjoy every minute. All the important ports of the Great Lakes are reached regularly by the excellent service of the D. & C. Lake Lines. The ten large steamers of this fleet are of modern steel construction, propelled by powerful engines and have all the qualities of speed, safety and comfort. The United Wireless Telegraph Service used aboard.

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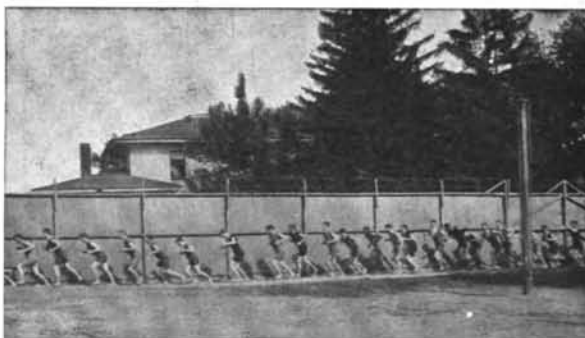
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The Equipment is complete in gymnasium, laboratories, and swimming pools.

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THE BATTLE CREEK IDEA

Vol. III No. 33

BATTLE CREEK, MICH., JULY 22, 1910

Price 2 Cents

Hot Drinks at Meal Time

The Least Objectionable Hot Table Beverages Named by Dr. A. J. Read in Response to Queries in Parlor Lecture

As I have been requested to state my opinion of some of the beverages usually found upon our tables, I wish to remind you at the

HOW DAYS ARE SPENT BY SANITARIUM GUESTS

The Daily Program is Full of Events—
A Good Healthy Tired
Each Night

ONE frequently hears it remarked that Sanitarium patients are kept very busy from morning to night, with but very little idle

Flesh Not a Wholesome Food

A Lecture by Dr. J. H. Kellogg Clearly Shows that Flesh Contains Germs and Parasites

WHEN we consider the matter of the natural human diet from even other than the physiologic and the anatomical viewpoints,



PURE FOODS

outset that I can not speak in commendation of any of them to any great extent. The habit of drinking at meals is largely one that we fasten upon ourselves by association. There is no doubt that the habit of washing our food down with large quantities of liquids instead of thoroughly masticating it,
(Continued on page four)

time on their hands. There is always something to engage the attention, something to look forward to, and something to be done. No room is left for *ennui*, or for that lonely feeling that engenders homesickness.

It is taken as a matter of course by the Sanitarium physicians that those who come
(Continued on page three)

as we have already considered it, we find the strongest possible arguments against the use of flesh food. For example, suppose we consider it with reference to purity. Take an apple from the bough where it hangs, red-cheeked and mellow in the sun, and examine it, and it is absolutely pure. There is not a thing inside of it but what is absolutely pure,

not a germ, not a poison in it. We take a potato from the soil, wash off the dirt, and there is a cellulose covering, a little woody shell around it, the brown paper, in which it is done up, that keeps it absolutely clean and pure, so when you take that covering off we have a perfectly pure food, pure as the driven snow. Now, this is true of all vegetable foods, of the fruits, and the nuts, and all the cereals, all the vegetable foods that grow are absolutely pure in their natural state.

Flesh Food Always Unclean

On the other hand, take animal food under the best conditions in which you can find it. Go down to the butcher shop, get the freshest meat you can buy, put it under the microscope, and you will find it swarming with bacteria. Scores of different kinds of germs have been discovered in flesh, and some of them the most deadly kinds of germs. As an illustration of that, I might tell you of a thing that happened not very long ago: A man who owned a lion sold him to a menagerie. Some time afterward he visited the menagerie, and he found the lion in his cage asleep. He thought the lion would recognize him as his old master, and he was so sure he would, that he put his arm through the bars of the cage and touched him. The lion was suddenly aroused from his sleep and seized the arm before he recognized his old master, and crushed it. The man was delivered from the jaws of the lion, taken to a hospital, but in three days he was dead. He was swollen from head to foot, bloated with the most offensive gas. And the man's body was found to be filled with a peculiar germ that was discovered a few years ago, that produces a deadly poison and a most offensive gas. This man was inoculated with these germs from the lion's mouth. He got them from the meat upon which he had fed. They are found almost universally in meat.

Why Doesn't it Kill the Man

who eats it? It does not kill him for the reason that he does not actually put it into his blood; for the reason that his mucous membrane has the power to fight off germs and germ poisons; it is a filter that keeps them out. It is for the same reason that if a rattlesnake bites a man he dies; but if he takes that snake's virus into his mouth and swallows it, it does not destroy his life. Such things are happening all the time. Thousands of people are dying every year who are supposed to die from typhoid fever, but really die of beefsteak poison. That is an exceedingly common thing. Some of the germs which are found in meat as it comes from the butcher shop produce a disease which so nearly resembles typhoid fever that it can not be told from it without an examination of the blood. The symptoms are just the same, and any number of people are suffering from meat poisons who are supposed to be suffering from malaria.

The best beefsteak you can get in the market is simply swarming with germs. An examination was made in our laboratory last year, and the insignificant number of one billion two hundred million bacteria was the average number found in one-eighth of an

ounce of beef—bacteria that are capable of producing the most deadly kind of poisons.

Fish the Worst of All

There are certain flesh foods that are richer in bacteria than others. For instance, the salt mackerel, codfish, herring, sardines, and oysters—all kinds of so-called sea foods—are simply swarming with bacteria in countless numbers, so that it is almost impossible to estimate them. You can not get such a thing as a piece of meat in the market that is clean, that has no bacteria in it. We talk about milk being so impure, but milk is not allowed to contain over 800,000 bacteria in a teaspoonful; more than that would condemn milk as not fit for commercial use; and the so-called certified milk must not contain over 20,000 germs to the teaspoonful. But beefsteak, you can depend upon it, has anywhere from a billion to ten or twenty billion bacteria in the same quantity. Yet people are afraid of milk, who do not stop to think about meat. This certainly is "straining at a gnat and swallowing a camel."

Trichina in Hogs

This government has been keeping an account of the hogs in which trichinae were found. The German and French governments, in fact most of the foreign governments, refused to take any more American pork because of the trichinae in it; so the United States government, in order that the meat should be sold abroad, had to establish an inspection service at every large slaughtering establishment, to inspect the hogs that were to be shipped abroad. The German peasant must have inspected pigs to eat, he must not be allowed to eat trichinae if the United States government can help it; but the American may eat just as many trichinae as he wants to. There is no efficient inspection made of hogs that are eaten at home.

It is found that two per cent of all the hogs that are examined for export have trichinae in them. Probably a much larger per cent would be found to have trichinae if the whole swine were thoroughly examined. Is not the American public entitled to inspected meat? Certainly we ought to be protected as much as others, but we are apparently ready to swallow anything that comes along without any protest. So long as the American people are willing to swallow hogs, trichinae and all, there will be no pains taken to protect them. In Indiana some years ago, Doctor Sutton made an investigation and reported that ten per cent of the hogs had trichinae.

When I was a medical student I found some little white specks in a subject I was studying, and I called the attention of the professor to them. He said, "Those are trichinae. I have kept careful account of the subjects that come into this anatomical laboratory, and I have found that one in every seventeen of all the people examined here have trichinae." That would be practically six persons in every hundred.

Rheumatic Pains Due to Trichinae

A German doctor states that a great many pains in the muscles, rheumatic pains, etc., are caused by trichinae. They settle down in

little sacs in the muscles, and surround themselves with chalky masses. Hundreds of people are dying of trichinosis every year who are supposed to have typhoid fever. It resembles typhoid fever very closely indeed. Doctor Osler in his great medical work says that the majority of cases of trichinosis poisoning are treated for typhoid fever, and die of what is supposed to be typhoid fever; and that is the reason why we do not hear more about it.

Then there is tapeworm, and many other parasites that are found in flesh, that I have no time to talk about to-night. No one ever has tapeworm who has not eaten pork. There is measly meat with little bladders all through it. When such meat is eaten, those little bladders are dissolved, and the worms inside fatten upon the mucous membrane, begin to grow, and they add joint to joint, and by and by there are yards and yards of tapeworm floating back and forth in the intestine. Some people's lives are made miserable by these tapeworms.

Flesh Never Intended to be Eaten

But suppose there were no parasites—no germs—suppose the meat was just as sweet as it could possibly be; suppose you took it just as the Kalmuk Tartar takes it,—simply take a slice off the warm, living, walking animal, simply carve out a slice of steak, of warm, quivering flesh, and eat it raw. The Porto Rican eats his meat while it is still warm. If you do it that way, so that there are no germs in it, and if you see the animals are perfectly healthy so that there are no parasites in the flesh, still there are evils so great that it is impossible to believe that flesh was ever intended to be eaten as food.

Consider that in our natural diet we have just the proportion of protein that we need. The ox eats grass, and he finds all the protein he needs in this food; the horse eats corn, oats, grass, and hay, and he finds all the protein that he wants in those things. Meat is almost pure protein. Protein and fat are almost the only food elements found in meat. Lean meat is pure protein, and nothing else. But that is an element we do not need much of. The proportion is so small that we do not need any more than is found in bread, and in rice, and in our ordinary cereal foods. We do not need any more protein than the ox needs. The horse needs just as much protein as we do. The horse has large muscles, and uses them, and needs protein in at least as large proportion as we do. It was formerly supposed that these animals needed a great deal of protein, and protein food was fed to animals; but in the Minnesota Agricultural Experiment Station some investigations were made and the discovery was made that animals that worked were healthier and more bardy, and were much better and finer if they had little protein. But it is only within very recent years that it has been discovered that the same thing applies to men,—that the protein in the ordinary foods is quite sufficient.

The starch and the fat are the things that keep the machine going. Protein is simply to keep up repairs, to keep the body machine intact. When a man makes his dinner mostly out of meats, precisely the same thing happens to him that would happen to a loco-

motive if the fireman, instead of putting coal into the furnace put in chunks of iron, masses of copper, lumps of steel and brass. He would very soon have the fire out; the grates would be clogged, because these things can not burn. That is what happens to the body when too much protein is eaten. The body can use but very little protein, and when we take a large amount of it into the body the consequence is there is a large mass of material that can not be used, left in the intestine, where it undergoes putrefaction.

Every Food that Nature Prepares is Prepared Right.

Corn contains everything that the hog requires, such as proteins, carbohydrates, fats, and lime. Nine-tenths of all the lime eaten goes to nourish the bones, the protein goes to the muscles, and the starch and the fat go into the fat of the animal. When a man eats the hog, he eats the meat, fat and lean. He gets the protein and the fat, but he does not get the lime, because it is nearly all deposited in the bones. So if one is to get that corn back again, he will have to eat the whole hog,—it is "the whole hog or none" in this case, you see. The lime is all in the bones, and if the meat is eaten without the bones, there is suffering from lime starvation.

Another Source of Lime Starvation

is the use of sugar. I was in a sugar factory in Porto Rico not long ago, and saw the process of sugar-making. The sugar is crystallized out of the sap, and a sediment of lime is deposited, and it goes off in the molasses. So the sugar has no lime in it at all. If a person, then, eats largely of cane sugar and meats, he is not getting his supply of lime at all. That is why we have so many people with decaying teeth; that is why the bones are going to pieces; and Professor Sherman, of Columbia University, has called attention to this fact very forcibly. He was not the first one to discover it, for Professor Bunge, of Basle, Switzerland, called attention to this important fact.

You see at once that meat is not a natural dietary, and never was intended to be eaten; but if it is eaten, we ought to do as the lion does, eat the whole animal, bones and all.

Now, look at it from the esthetic viewpoint. An apple, a peach, a plum, a pear, a coconut—anything you can think of that is natural for human beings to eat, is attractive. What is more attractive than the luscious fruit that hangs down from the trees? We eat it with delight because it is in every sense delicious—in appearance, in odor, in flavor, and in taste. Its effects are invigorating and pleasant. There is no blood, no ill smells, no conscientious twinges at having robbed some creature of its precious life. The eating of flesh is outside of our normal experience; it is only because the old savage still lives and yells in our hearts that we are able to eat roast beef and other forms of flesh. The more you think about it, the more experience you have in the better way, I am sure the more you will be disposed to agree with me that flesh-eating is an abnormal and perverted practice.

THE DAILY PROGRAM

(Continued from page one)

here in search of health are ready to make the finding of it their principal business while they are here, and that they are desirous of expediting the matter as much as possible, and, having no other duties to claim their attention, they are prepared to devote all their time and strength to that one object. In fact, that is one great reason for sanitariums and hospitals, and infirmaries. They afford to the invalid uninterrupted opportunity to seek to regain his health. At home there is always so much that demands attention, so many things to distract the thought, worry the mind and weary the body, that it becomes absolutely necessary to break away from home and the business and cares of daily life and get to a place where they can be left out of the reckoning altogether.

6:45—Gymnasium.

7:45—Lecture or entertainment.

9:00—House quiet.

This gives a fair outline of the features of each day's work as it is presented to the average patient who is able to be about and to take up the program. Of course, these exercises are many of them at the option of the patients. They are provided and recommended, but one may not feel equal to all of them every day. But the list shows at once that there is no time allowed for the blues. Just time enough is allowed for requisite rest, and when the day is done, each one is ready to go promptly and quietly to bed and to sleep for a good nine-hours' rest.

And the program is not arranged simply for the purpose of enabling one to kill the time. Every item is intended to, and does, contribute to the regaining of health. The passive inactivity of invalids is often a very



SANITARIUM GUESTS PLAYING GOLF

And it is the endeavor of the Sanitarium physician to facilitate this separation of home and business and society cares and labor, and surround the patient with an entirely new environment, and to supply him with a program that will help to eliminate those old cares and worries from the life, at least for a time.

On arriving at the Sanitarium the patient is supplied with a card giving the following schedule of daily exercises:

- 6:00 A. M.—Morning bath.
- 6:30—Walking.
- 7:00—Breathing exercises.
- 7:20—Morning worship.
- 7:40—Breakfast.
- 9:00—Gymnasium drill.
- 9:30—Swedish movements.
- 10:00 to 12:00—Treatments.
- 12:00—Rest hour.
- 1:00 P. M.—Dinner.
- 3:30—Chest gymnastics.
- 4:00—School of Health.
- 5:00—Treatments.
- 6:00—Luncheon.

great obstacle to their recovery. One needs to "get up and hustle" for health as well as for wealth. There are comparatively few people who come to the Sanitarium because they have had too much physical exercise. People come here with nerves and stomachs and livers and hearts worn out, but there are few who come here with exhausted muscles. The great majority of sick people are such because their physical culture has been neglected. And gentle and pleasant occupation of the muscles comes to them as a very salutary diversion from the nervous strain to which they have been subject.

Under the influence of constant and congenial employment the system renews its functions and activities and troubles disappear almost before we are aware that they are gone. Let none hesitate to come to the Sanitarium for fear time will hang heavily on their hands, nor yet because they dread the active life. The patient is constantly under the care of his physician, who counsels freely as to the proper amount of exercise and rest to be taken in each case.

The Battle Creek Idea

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BATTLE CREEK, MICHIGAN

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PUT IN SOME SWEETENING

It was a saying of "Josh Billings," one of the humorists of the last generation, that "grumbling at the weather is mighty poor farming." Grumbling at our circumstances and surroundings makes mighty poor living in any line of business or in any situation. There are always sure to be plenty of things in our environments that we may wish were different, our circumstances may in some respects not be such as we should choose, and the people we have to do with may not be altogether agreeable, but that need not spoil life for us. The world is wide and we can easily avoid meeting the disagreeable features of life. A man who can not live peaceably at home may live somewhere else, a woman who does not find her associations congenial may change them.

Trouble is largely imaginary anyway. We worry more about things that never happen than we ever have cause to worry about real trouble. In every emergency and difficult place there is some honorable way out. The individual who does that which is right, and who lives a life of calmness and peace has nothing to fear or dread. He may confidently meet the future, no matter what the future may be.

That which makes life so hard and burdensome for many people is simply the attitude they assume toward life. They are suspicious, sensitive, envious, even jealous of every other person who is prosperous, and the very happiness of other people makes them miserable. Misanthropic and sour, they get no sweetness out of life, they are pessimistic toward every phase of the world and its doings, see only evil, and dolefully think and speak of that which is to come and that which is. Such people are generally in ill health, their digestion is poor, their nerves are unstrung, their tempers are unreliable, they are out of joint with themselves, and so of course with all around them.

Now the best thing in the world for people who are disposed to hypochondria, who are out of harmony with their lot in life, is to do something for the hyperacidity of their

disposition. Just as the food of some people sours in their stomachs and nothing they can eat agrees with them, so there are people in whose mind everything goes sour. Never a concert pleases them, never a lecture strikes them favorably, never a meal of food is fit to be eaten, and so on to the end of each day. Well, sweeten up. Get right with God, and get near to other people; enter into sympathy with those who are really suffering and cheer up. It will bring health and happiness to many sad lives.

THE EXAMPLE OF PRINCES

THE Wise man wrote many, many years ago, "Blessed art thou, O land, when thy princes eat in due season, for strength, and not for drunkenness." One of the most hopeful of the signs of the times is the attention that is being given by public men to the matter of individual hygiene. Public measures and general regulations are right and necessary to the preservation of public health, for the purpose of staying epidemics and the prevention of disease breeding on a large scale, but what is particularly needed now is that attention should be given to personal habits, which do not perhaps come within the range of practicable or legitimate legislation, and yet which are most intimately related to the public welfare.

The most that can be done to promote individual hygiene is in education and example. It is therefore very gratifying to see men of leading influence, men who are looked up to as leaders in modern thought and philanthropy, taking an active interest in the subject of health and its conservation. The time is now for every man who has the welfare of himself and others at heart to take good strong grounds in favor of practical physical righteousness. It will be a good day for this and every other country when our princes shall array themselves against prevailing evil habits on the side of temperance and self-restraint.

WAR UPON BRUTALITY

THE vigorous and valiant fight that the Society of Christian Endeavor and other Christian organizations and individuals are making against the exhibition of the prize fight pictures is certainly laudable and should enlist the active sympathy of all good people. It has rightly been said that if perchance anything could be said in favor of the fight itself as an exhibition of courage, skill, and strength, none of these things can be claimed for the mere exhibition of the pictures. Not one elevating thought or impulse could ever come to any person from viewing representations of two men hammering and bruising each other.

The very sight of one man pounding into a humiliating submission a bleeding, blinded and dazed fellow man is to the last extreme brutal, beastly, degrading to every fine sense of manhood and chivalry. To show such things to the boys and girls of our communities is to sow a crop of tares that will produce nothing but sin and sorrow. We heartily join in the appeal that has been made to our municipal authorities to disbar such exhibitions from our city.

HOT DRINKS AT MEAL TIME

(Continued from page one)

and of substituting tea and coffee or any of their cogeners for a thorough admixture of saliva with the food is a pernicious custom, and one which should be avoided, or if already formed, should be broken off.

However, I am not called upon to discuss that phase of the question, but rather to take it as granted that some hot drink at the close of the meal is desirable, and in some cases it may be, and then discuss what the nature of that drink shall be. The direct question put to me is this:

"Is Sanitas Cocoa a Healthful Drink?"

The question relates to a drink prepared in the food factories affiliated with this institution, and found upon our menu.

The average cup of cocoa or coffee contains about two grains of caffeine, or theobromin, which has a very strong stimulating effect upon the kidneys. This might be proper sometimes as a medicinal measure, but when we use an article of food containing an active drug which causes a stimulation of any of the tissues of the body, we soon wear out the tissue that is so stimulated, so that the ordinary, natural stimuli, which should create a vigorous activity of that organ, have no effect upon it, and the result will be that the organ itself will become weakened and unable to do its work.

Nature has Provided a Natural Stimulus

for every organ and tissue of the body. The kidneys, the heart, the lungs, the stomach, the brain, the nerve tissues—all have their natural stimuli, and if we substitute for these an artificial stimulus, then we will weaken the organ that is so involved. The Creator, after all, knew better than we what is the best stimulus for each of the tissues of our bodies, and he has provided it, so that in the carrying on of the functions of the body that stimulus which is needed for the individual organs or tissues of the body will be developed, providing the body is in a fairly average condition. Occasionally it is necessary to use artificial means of stimulation, but only for a short time. The wise physician does not continue artificial stimulation for a long time.

Now, in some of the ordinary beverages, as tea, coffee, and cocoa or chocolate, is a stimulant which is not good for the tissues involved. The theobromin of the cocoa and of the chocolate, and the caffeine of the coffee are such drugs, and they do stimulate the kidneys. I once saw an experiment in which there was attached to an animal's ureter a glass tube which enabled one to observe and estimate

the amount of urine excreted by the kidney constantly from moment to moment, and the amount being excreted was measured in drops, normally one drop in every fifteen seconds. After a dose of caffeine such as one gets from an ordinary cup of coffee—and the effect of theobromin is practically the same—the secretion of the kidney immediately increased; in less than a minute there was a marked increase, so that instead of a drop once in fifteen seconds, there was a drop once in about five seconds, then once in three seconds, once in two seconds, and once every second, and so on until the drops came so closely together that they finally coalesced into a stream of excretion coming from the kidneys as a response to that artificial stimulation. After the effect of the stimulation had worn off, the kidneys failed to do their normal work, and there was consequently an accumulation in the tissues of products that should have been thrown off.

Rheumatism Caused by Tea and Coffee

Undoubtedly a great many rheumatic and neuralgic conditions and irritations of the nervous system are caused by over-stimulation of the kidney tissue through the habitual use of the beverages which are being constantly employed, and the failure of the kidneys to carry on their normal work, allowing the material which should be thrown off to accumulate in the tissues and do disastrous work. It was for such reasons that the Sanitas Cocoa was produced, a cocoa which has the flavor of cocoa fairly well preserved, which has all the advantages of a hot drink—

for a hot drink at the close of a meal is beneficial to a certain number of people. I am satisfied that our tea and coffee habits are partly due to the demand of the system for a hot drink as a sort of a natural stimulation to the digestive processes. The chemical processes of digestion take place in the case of some people much better in the presence of heat in the stomach; and for that reason a hot drink at the close of a meal seems to give an impetus to the digestive process, and so we have in some cases of

slow digestion a natural demand for the hot drinks. Most of our customs and habits have arisen from a really legitimate reason, a real natural cause, but we do not always connect the reason with the demand itself, and sometimes we get very far astray from the demand of nature.

Now, in the Sanitas Cocoa we have the benefits of the hot drink, we have the flavor of the cocoa, and we have the theobromin eliminated, so that the Sanitas Cocoa is a healthful drink, and is very suitable as a



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Among other special advantages offered are laboratory instruction in bacteriology and chemistry, the use of the microscope, urinary analysis, practical course in cookery and dietetics, medical gymnastics, swimming, anthropometry and open air methods.

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Annual Niagara Falls Excursion, Aug. 9th.

L. J. BUSH, Passr. Agt.

substitute in place of the ordinary cocoa. The caramel cereal is much better to be used than coffee, if you want a hot drink, and if simple hot water is distasteful to you. Of course the simplest hot drink we can have is hot water to which has been added a small amount of milk—what is often called cambric tea. If taken with a relish and supplying the needed heat, the results are satisfactory.

During the hot days of summer, when one is apt to use too liberally of cold beverages between the meals, the cup of hot drink with the meal will warm the chilled stomach and promote normal digestion.

BENJAMIN FRANKLIN ON FRESH AIR —1798

THE following is quoted from "The Art of Securing Pleasant Dreams," by Ben Franklin:

"Another means of preserving health to be attended to is the having a constant supply of fresh air in your bed-chamber. It has been a great mistake, the sleeping in rooms exactly closed and the beds surrounded by curtains. No outward air that may come to you is so unwholesome as the unchanged air, often breathed, of a close chamber. As boiling water does not grow hotter by long boiling if the particles that receive greater heat can escape, so living bodies do not putrefy, if the particles, so fast as they become putrid, can be thrown off. Nature expels them by the pores of the skin and the lungs, and in a free open air they are carried off, but in a close room we receive them again and again,

Original from

UNIVERSITY OF MICHIGAN

though they become more and more corrupt. A number of persons crowded into a small room thus spoil the air in a few minutes, and even render it mortal as the Black Hole at Calcutta. A single person is said to spoil only a gallon of air per minute, and therefore requires a longer time to spoil a chamberful; but it is done, however, in proportion, and many putrid disorders hence have their origin. It is recorded of Methuselah, who, being the longest liver, may be supposed to have best preserved his health, that he slept always in the open air; for when he had lived 500 years, an angel said to him, 'Arise, Methuselah, and build thee an house, for thou shalt live yet 500 years longer.' And Methuselah answered and said, 'If I am to live but 500 years longer, it is not worth while to build me an house; I will sleep in the air as I have been used to do.' Physicians, after having for ages contended that the sick should be indulged with fresh air, have at length discovered that it may do them good. It is therefore to be hoped that they may in time discover likewise that it is not hurtful to those that are in health, and that we may then be cured of the aerophobia that at present distresses weak minds, and makes them choose to be stifled and poisoned rather than leave open the window of a bed-chamber or put down the glass of a coach. Confined air, when saturated with perspirable matter, will not receive more, and that matter must remain in our bodies and occasion disease."

QUESTION BOX DEPARTMENT

EACH Monday evening Dr. Kellogg conducts a Question Box talk in the Sanitarium parlor, where all guests and patients are at liberty to submit questions relating to health and health topics.

Q. Should a person eat when he feels bilious?

A. It depends on what he eats. He can get along without eating, or he may eat plums, peaches, pears,—any kind of juicy, acid fruit will do him no harm. If he is nauseated he should eat nothing; but if he is bilious, it is perfectly harmless to eat fruit.

Q. Explain how a person with inactive and very sluggish bowels should never have headache.

A. Because he has an extra good liver and kidneys, and the poisons are carried out fast enough so that the head is not irritated. Possibly he is not so sensitive as some other people.

A. Is it possible to permanently cure lumbago?

A. Yes; the cause must be removed. Very often it is due to intestinal autointoxication. Very often this pain in the back which is thought to be lumbago is really due to a diseased colon. It is referred pain, pain that is reflected back, and the trouble is not in the back at all, but really in the colon.

Q. What treatment will relieve lumbago?

A. A very hot bath. Put into the tub about six inches of water at 102° F. Lie down in it, or usually sitting in it is sufficient; then let more hot water in until the legs look like boiled lobsters, when the pain will have disappeared. Then have some water at 80° poured over the body; go to bed. Repeat the treatment every three hours. Two or three applications will often cure the lumbago.

Q. Should bananas be crushed in order to be digestible?

A. Yes, the stringy portion outside of the banana should be removed, and then the fruit will be found more digestible. The banana should be thoroughly ripe. The best way is to put it through a colander; banana pulp prepared in this way is extremely digestible. We have fed this banana pulp to patients who could not eat anything else.

Q. Is arteriosclerosis a physiologic or a pathologic condition, or both?

A. It is a pathological or diseased condition that comes on in old age; but old age is a diseased condition. Nobody dies physiologically nowadays. The old man or the old woman is a person whose arteries have become hardened and shriveled up so the tissues are no longer supplied with the proper amount of blood.

Q. I have not used milk, coffee, tea, nor eggs for years, yet my doctor says I have autointoxication. How can this be?

A. You have been infected, and have not gotten over it yet. You probably need to have some specially thoroughgoing treatment, and will need to persevere some time before you get entirely rid of these infecting organisms. It is not an easy thing to cure auto-

intoxication. It is easy to correct conditions and to remove causes; but after the body has once become infected, it is very difficult to get rid of the infection.

Q. Is flushing the colon harmful?

A. Sometimes, especially when warm water is used continuously.

Q. Which is the best for pain in the bowels, hot water or cold?

A. Heat is the remedy for pain unless the pain is superficial and is due to inflammation—then cold is sometimes better, though heat is generally better, because it kills pain, nobody knows how; it somehow deadens the nerves.

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The Battle Creek Idea (Weekly)\$1.00 per year
Good Health (Monthly)1.50 " "
The Medical Missionary (Monthly)50 " "

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ARRIVALS

THE list of patients who have registered at the Battle Creek Sanitarium during the week ending July 17 is as follows: T. A. Mauldin and R. G. McDonald, Miss.; Mary E. Logan, Mich.; Henry Parsons, Kalamazoo; Mrs. Geo. N. Hale, Miss Genevieve Goodman, Mich.; Rodolfo Bonnet, Ill.; Mr. and Mrs. I. Baron and children, and George Baron and wife, Texas; Mr. and Mrs. E. M. Rody, Pittsburg; Mr. and Mrs. J. B. Templeton, Tenn.; Tom Fitzgibbons, La.; Mrs. Thos. Hall and three children, Chicago; Mrs. A. A. Russ, Kans.; J. F. Hoke, Ind.; Mrs. R. Macbeth, Mich.; J. M. Barrs and M. McClellan, Fla.; Horace E. Hoyt, Ia.; Grace M. Bromley, Ill.; R. M. and W. R. McCauley, Ill.; Webster Tomlinson, Chicago; W. L. Jessup, Ga.; Dr. Harrison J. Jones, Calif.; Fred Atzet, Cincinnati; O. C. Somerville, Mich.; Mr. and Mrs. A. L. Bernardin, Jr., and child, Ind.; M. Norseth, Minn.; Mrs. D. H. Best, S. Dak.; Mrs. S. Stenninger, Mo.; B. F. Ferrill, Miss.; Abe Livinson and wife, Ind.; Geo. Bond, wife and son, Tex.; Olga Brecklain, Mo.; Otto Buerger and son, Denver; H. Piaples, N. D.; J. A. Kemp, Tex.; Miss E. K. Goldsborough, Washington, D. C.; Chas. Barton, Philadelphia; Ruth Rowland, Okla.; Mrs. Geo. Kernand, Miss Clair Macbeth, Mich.; Emily C. Mead, City; E. C. Wuber, Toledo; Mrs. L. Billepp, Mrs. H. Lutzenkirchen and Virginia, Chicago; Wm. Burnside and wife, Ia.; Miss Mary C. Hurd, Ill.; Ada Griest, Ind.; M. E. Latta, Ill.; Mrs. Sarah M. Hornby, O.; G. M. Bryant, O.; Mrs. J. Alex-

ander, New York City; J. Pollock, Jr., W. Va.; Chas. Kefover, Pa.; Geo. M. Harrison, Mich.; Geo. M. Dickson, Tex.; W. S. Murock, Kans.; A. R. Masterson, Tex.; Jas. R. Deasen, Tenn.; Mrs. D. C. Miller, Ill.; Mrs. L. B. Grandy, Mich.; C. E. Berrett, wife and nurse, Okla.; Dr. C. M. Henderson, Miss.; Theresa C. and Julia Cooper, Ia.; Mrs. S. C. Holman, Ill.; Mr. and Mrs. M. J. McPherson, Mich.; Mr. and Mrs. Miles Townsend, Mich.; Mrs. M. J. Arnold, Texas; Roger Gonzales, Texas; Jessie Dean, Kans.; J. W. Kessler, Ill.; L. A. West and wife, Ky.; Mrs. S. Abels and children, N. Y.; Miss Hallie Dignourthy, New York City; H. L. Chapman and H. B. Chapman, O.; Mrs. E. L. McHenry and child, Ill.; Dr. E. P. Johnson, N. J.; Chas. T. Torrey, Mich.; Mrs. R. W. Coon, Ill.; Mrs. B. Margolis, Chicago; Miss Sadie Temple and niece, Mo.; C. Houres, Kans.; Mrs. Monroe Adler and son, Chicago; Mrs. J. O. Brinkerhoff and Miss Brinkerhoff, Mo.; C. W. Holbrook, Okla.; C. E. Smith, La.; A. M. Davidson, Chicago; Ben R. Thomason and R. E. Thomason, Tex.; A. W. Reed, Ind.; Richard Cronin, N. Y.; Mrs. C. E. Bennett, Okla.; H. A. Peterson, Minn.; E. B. Grove and child, U. S. Army; Alice White, W. Va.; F. R. Hamilton, Ga.; Mr. and Mrs. Edw. W. Biddle, Pa.; H. H. Albert, Ind.; Mrs. Edele Vegeby and children, Mo.; Mrs. D. Williams, Ind.; John P. Baird, Ark.; C. M. Brown, Ill.; R. E. Deema, Neb.; Mrs. W. G. Ragan and Miss Ada Ragan, Ga.; N. S. Florsheim and Jacob J. Wise, La.; Mrs. M. W. Wicks, Pa.; C. W. Wick, La.; Elizabeth Duke, Ark.; Mrs. H. B. Kinman, Boston; Richard M. Price, W. Va.;

Bernard Logan, Mont.; Mrs. Chas. P. Montgomery and Dr. J. B. Montgomery, Miss.; D. E. Kearegh and wife, W. Va.; W. Williamson, City; Wm. G. Fairleigh and wife, Mich.; Aden Knopf and wife, Ill.; O. M. Kaufman, Tex.; C. V. Boyd, Calif.; Chas. D. Kerr and wife, O.; Jas. A. Swearer, Pittsburg; Caddie M. French, New York City; D. A. R. Crum and wife, Ga.; Mrs. Jos. Moore Reed, Ind.; Mrs. P. A. Leonard, Mich.; J. M. Hanna and Mrs. L. G. Thompson, Pa.; H. N. Conrad, Ky.; D. C. Gibbs, Mich.; John D. Werden, Ala.; H. B. Earthman, Fla.; C. C. Willson and Mr. Deutch, Chicago; John F. Dickson, Tex.; W. D. Willson, Fla.; J. M. Barker, Ind.; Mrs. W. Walk and children, Pittsburg; C. Mittenhal, Tex.; Mrs. J. H. Sykes, Okla.; Dr. Antoinette and family, R. V. Thompson and Mrs. J. T. Thompson, Cincinnati; Mr. and Mrs. Chas. H. Howard, La.; H. L. McElroy and wife, Mo.; D. S. Cole, Ind.; W. C. McIntyre and wife, Tex.; Mr. and Mrs. G. M. West, Mrs. Bell Cramwell, W. Va.; Mrs. Anthony Murphy, Mrs. C. E. Seiple, and C. E. Murphy, Ga.; A. L. Granger, Ill.

News and Personals

Dr. Jas. T. Case, of the Sanitarium medical staff, has returned from a trip to California.

Mrs. M. J. Arnold, of San Antonio, Texas, has returned to the Sanitarium for further rest and treatment.

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THE ONE-YEAR COURSE

Is especially designed for matrons and housekeepers, and those who desire education and training in Cookery, Dietetics, Chemistry, Home Nursing, Household Economics, and kindred subjects.

THE TWO-YEAR COURSE

This course gives necessary instruction and training to prepare those who take it to fill positions as dietitians, lecturers, and demonstrators.

Details of courses are given *in extenso* in the Annual Announcement, which will be sent on application.

Mrs. Lucy G. Thompson, of Lincoln, Neb., is again with us for treatment, having been a patient here in 1881.

Miss Mary C. Hurd, of Galesburg, Ill., is resting at the Sanitarium. Miss Hurd is a sister of Mrs. S. S. McClure, of New York City.

Mr. N. C. McIntyre, of Wichita Falls, Texas, a prominent real estate dealer, is stopping in the institution for a course of rest and treatment.

Mr. and Mrs. Edw. W. Dibble and son, Edward M., and Mrs. Samuel B. Johnson and daughter, from Carlisle, Pa., are new arrivals at the Sanitarium.

Attorney A. L. Granger, of Kankakee, Ill., has entered the institution for a course of rest and treatment, and also to visit his mother, who is a patient.

The Battle Creek Chautauqua Assembly is in session this week. The attendance thus far has been very satisfactory to the managers and the talent has been equally so to the audience.

The lecture on the Panama Canal by Judge Martin M. Owen, of the United States Court, on the evening of July 12, proved to be an entire success, a large audience being present; and the proceeds amounting to a nice sum will be devoted to the Christian Endeavor Society.

Bubble drinking fountains furnishing a constant supply of refreshing water from the Sanitarium artesian well have been placed on the lawn at the north end of the Sanitarium and in front of the College building. These minister very much to the comfort of the Sanitarium family during the summer days.

We have received from Dr. John F. Morse, a member of the Sanitarium medical staff who is in Edinburgh, Scotland, fine accounts of the World's Missionary Convention held in that city. These reports are published in the current number of the *Medical Missionary*. More than ever before, missionary work is reduced to a science, and powerful steps are being taken to accomplish the evangelization of the world.

The workers are busy preparing an outdoor gymnasium and swimming pool for men on the lawn opposite East Hall. The enclosure contains about a half acre and will be provided with complete apparatus for swimming, spray, and general outdoor athletics, including a running track. This will undoubtedly provide a valuable addition to the present extensive facilities of the institution.

On last Sabbath forenoon the pulpit of the Sanitarium chapel was occupied by the Rev. J. P. McNaughton, who delivered a very interesting discourse on the subject of "Divine Friendship." In the afternoon

there was a reading of select poetry given on the lawn, illustrated with crayon sketches by Mr. Ivers A. Tenney, of Kalamazoo. A large audience was very highly entertained by this unique exhibition.

The Medical Missionary Association is publishing a report of the proceedings of the Medical Missionary Conference held in the Battle Creek Sanitarium some months

ago. This report is now practically ready for distribution, contains over one hundred large pages, is beautifully printed on good stock, and well illustrated. The matter consists largely of the various addresses and other proceedings of the Conference and will be found of great interest. Copies of the book will be sent postpaid for 25 cents each. Orders may be addressed to the Medical Missionary, Battle Creek, Mich.

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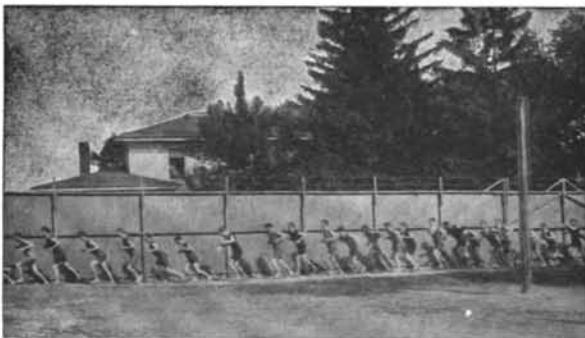
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THE BATTLE CREEK IDEA

Vol. III No. 34

BATTLE CREEK, MICH., JULY 29, 1910

Price 2 Cents

Sundry Questions

By Dr. A. J. Read before the Sanitarium Guests—Nervous Exhaustion Can be Permanently Cured

QUESTION.—Can nervous prostration be permanently cured?

ANSWER.—Yes. Nervous prostration is due to the accumulation of fatigue poisons in the body. When a person exercises, or

Annual Conference

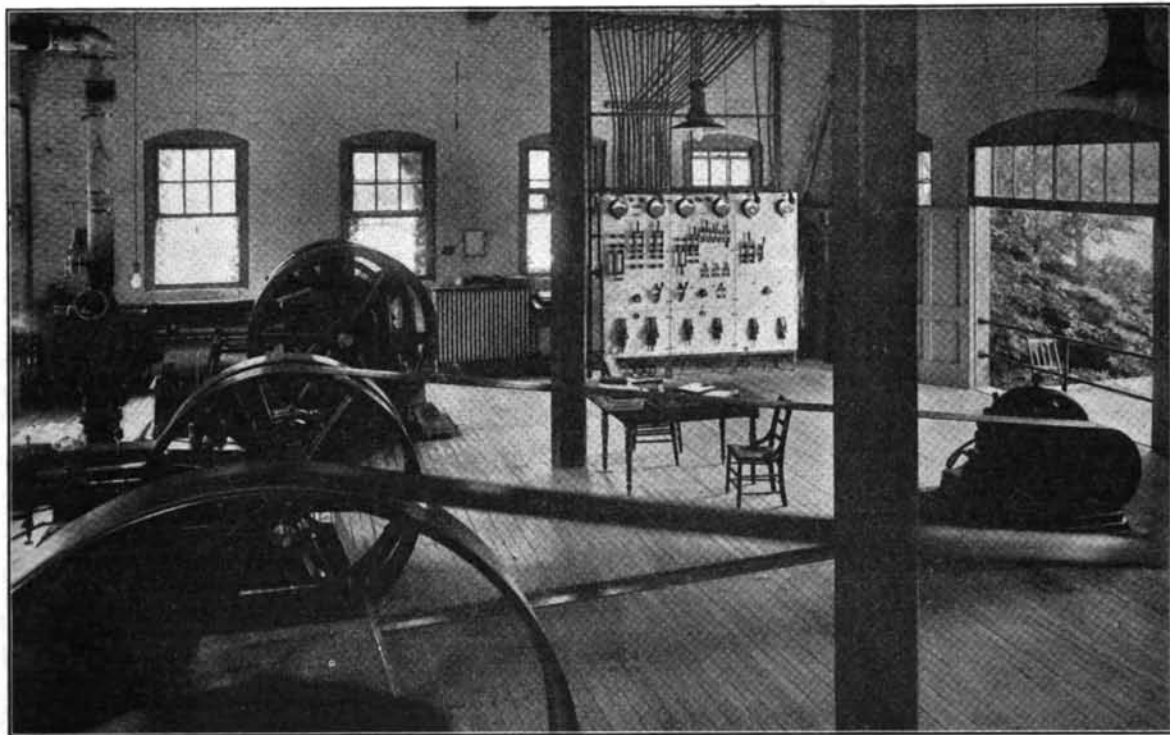
First Annual Meeting of the Health and Efficiency League of America, Held at Chautauqua Lake

THE first annual conference of the Health and Efficiency League of America was held at Chautauqua Lake July 13-15. The League was organized at this Assembly one year ago, and a cordial invitation was ex-

Bacillus Bulgaricus

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YOGURT is a fermented milk prepared from a particular germ that grows in the Levant. Milk standing in a warm place for a little while sours because there are certain germs floating about in the air which, when brought



ELECTRIC DYNAMO ROOM

labors hard, the body throws off toxic substances from the tissues, which are known as fatigue poisons. Some people have poor elimination through the skin, which is one of the most neglected organs of the body. Sedentary habits and want of muscular exercise render the skin inactive, and these toxic substances accumulate in the system. The kidneys and liver are overworked in their efforts

(Continued on page three)

tended to the League by the Chautauqua management to hold its annual sessions at Chautauqua. The initial success of the movement was so marked that it was decided to accept this invitation, and provision was made on the regular Chautauqua program allotting to this movement an entire week.

Among the leading speakers on the regular Chautauqua program of the week were

(Continued on page three)

in contact with the milk, produce acidity, cause souring and curdling of the milk. In Bulgaria and in all the region of the Levant there is a powerful germ that is capable of making four or five times as much lactic acid as any other known form of bacteria. And it has another advantage; it is a large, strong, hardy germs, and difficult to kill.

When you have a beautiful flower garden, if you do not take care, the weeds get in and

crowd out the flowers. The weeds grow more readily, and faster than the flowers. The flower garden must have care. Mr. Dooley went to see the doctor once, so he says, and the doctor told Mr. Dooley, "The weeds are getting into your posey garden—that is what is the matter with you." That is what is the matter with most of us. The weeds have gotten into our flower gardens—the alimentary canal, the stomach, intestine, duodenum, colon. Our flower garden is, in all, thirty feet long, and flowers ought to grow there; for that is the situation when we are born.

A Newborn Babe

has none of those noxious germs growing. I went to Europe three years ago chiefly to investigate the case of a baby; that was really the thing which started me off. While studying these alimentary germs, I made some studies on a newborn infant, and found that when the babe was born, there were no germs at all. We are all born that way; and if we could only keep that way, it would be greatly to our physical and moral welfare. For germs are really the root of most of the evil in this world, of all sorts. When the baby was two weeks old I was amazed to find that its intestinal contents contained billions of germs in a minute quantity. I was so alarmed when I got the report from the laboratory that I called up the house by telephone and asked the mother how the baby was getting along. I supposed it was just dying of cholera infantum, or something; but to my astonishment I found the baby was happy and in perfect health. I was very much interested to know what that could mean; and so I went to Europe to find out. I made inquiries all along the road from London to St. Petersburg; and I finally learned what the real situation was. Those were healthy, friendly germs; they were flowers, growing in the flower garden; and they were growing there for the purpose of keeping the weeds out.

A Double-Headed Germ

Professor Escherich, an eminent German bacteriologist, discovered that when babies are born, there are no germs; but in six or eight hours, in summer time, and in twenty hours in winter time, the baby's alimentary canal is just swarming with bacteria; but they are the friendly kind; they are the lactic-acid-forming bacteria; they are known as the *bacillus lacticus*, and *bacillus bifidus*. This bacillus has two names because it has two heads. It is a very curious sort of germ; has some very interesting properties. These germs have a twofold work to perform, like two watch-dogs that are put to watch the premises—one to take care of the house, and the other to take care of the barn. The *bacillus lacticus* takes care of the small intestine, where it lives and thrives; it can not live in the large intestine. But the *bacillus bifidus* lives in the large intestine. The reason for this is that the *bacillus lacticus* has to have oxygen in order to live, and the *bacillus bifidus* can live without oxygen. The person swallows oxygen with the food, so there is oxygen all the way down the intestine as far as the colon, or lower part of the intestine, and by that time the oxygen is all absorbed; so that in the colon there is no oxygen. So in the colon we have need of a watch-dog germ that does not require oxygen;

that can live without air; and the *bacillus bifidus* is that kind of germ. What marvelous evidence of divine beneficence, what evidence of divine care this is!—for the little infant born into a world that is full of deadly germs, so that with every breath it takes in germs, with every mouthful of food it swallows multitudes of them. It can not pick up a thing off the floor without putting a lot of germs into its mouth; and this baby is at once supplied with a perfect protection in this bacillus that grows in the colon, where the greatest danger is, and also lives in the small intestine.

Friendly Germs a Protection

So long as these germs are growing there, that child remains in good health; and as a rule these germs remain dominant; they occupy the field so nothing else can grow there, just like a big field of clover growing so vigorously that no thistle or weed of any other kind can grow there. You have seen such fields; and the good farmer knows how to get that kind of field; but when the seed is not sufficiently thick, so that here and there are bare spots, the weeds grow up, the whole field becomes contaminated, and weeds will gradually work their way in. Some weeds are so tenacious of life, and grow with such vigor, that they will work their way in gradually and run the clover out. That is true of some of these disease-producing germs that produce poisons. Some of them are so very hardy and resistant that they are able gradually to work their way in; so if a child is fed on improper food for a little while, unfriendly germs get in and take the place of these friendly ones.

Why Baby Foods are so Common

For instance, a mother is not able to nurse her baby. This situation is becoming very common among mothers. Almost half the mothers in New England are in that situation. That is one of the evidences of race degeneracy. That is why baby foods are being exploited so generally, and we have enormous industries built up in the manufacture of infant foods, because the mothers have lost their ability to supply their infants with food which is best and natural for them. So the cow has to be taken into partnership, and has come to be a sort of wet-nurse for the family. And cow's milk comes to the baby's mouth laden with filth from the barnyard and the stable.

Some years ago I obtained from Professor Kahn, of the Agricultural Experiment Station at Middletown, Conn., a collection of germs he had taken from cows' milk. There were some forty different varieties. We planted some of these germs, and it was very interesting to study them. There was a green germ, a blue germ, a red germ; there were yellow germs, and germs that had various sorts of odors. One germ had the delicious odor of new-mown hay; another smelled like a clover field; others smelled like a pig-sty; and others smelled like the chicken-coop. This was pretty good evidence as to the places from which these particular germs came; and they imparted the same odors to the milk. All these different germs were growing in the milk, and the baby swallows this miscellaneous collection of germs that

come from different farms.

Professor Roger, of Paris, made a study of the matter and found in the alimentary canal one hundred and sixty-one different species of germs; and nearly half of them are poison-making germs. Now, the purpose of yogurt is to supply a person whose flower garden has gotten full of weeds, with a whole lot of vigorous growing flowers to take the place of those weeds, to crowd them out. In other words, yogurt supplies him with these lactic-acid-forming germs in such abundance that the alimentary canal will be flooded with them, and these poison germs will not be able to grow.

Poison-forming Germs Can Not Grow

in an acid medium. In the cooking school of the Sanitarium there is a specimen of beef-steak which was put into a panful of yogurt two years ago the seventh day of June, and it is now just as sweet as when it was put in, as it has not undergone any change at all. It is a large beefsteak. It keeps in this way because the germs which cause putrefaction can not grow in the presence of these friendly, acid-forming yogurt germs. So we encourage people who have coated tongues, auto-intoxication, as almost every chronic invalid does have, to take yogurt tablets or yogurt buttermilk, or both, so as to encourage the growth of these friendly organisms in the intestine and crowd out the poison-forming germs.

Some one may ask, "How do you know we have poison-forming germs?" If you have a bad breath, you have billions of them; if you have a coated tongue, you have trillions of them; if the stools are putrid, with a loathsome odor, and foul gases are formed in the intestine, then there are myriads there growing, and producing poisons that are being absorbed into the blood. If you have a bilious attack, you may be certain that the intestine is swarming with these bacteria. There is no one who is entirely rid of them. We have to fight them down forever, exactly like fighting weeds in the garden. We can not kill off all these bacteria, but we may rid ourselves of a large number of them; but we must keep up the fight, or in a day or two we will be swarming with them again.

We Have Different Sorts of Yogurt.

I brought from Europe a few years ago a supply of the Bulgarian bacillus from the Pasteur Institute laboratory, where it originated. We afterward made cultures from it in our bacteriological laboratory and found it did a great deal of good. About a year ago I had a letter from a missionary, who had been thirty years in Mesopotamia, at the foot of Mt. Ararat, and he said, "I was at the Sanitarium, and I tasted your yogurt, and I have some yogurt that is better than yours, that I brought from Mt. Ararat. It is the original yogurt." I had him send me a jar of it, and since that time we have been cultivating the Mt. Ararat yogurt. Somebody suggested that it came over in the ark. Now, I do not know about that, but it would seem that Noah, who lived nearly a thousand years, must have had something to help him. He must have had the benefit of this longevity germ which Metchnikoff has taught us about.

This is not a very friendly country for yogurt. It belongs in a warm climate, and must have a high temperature. If you make a culture and put some germs in milk and take some of that milk and put it into other milk, and so go on, after a while you will not have any Bulgarian germs at all, because they run out. So we have to renew the stock with a great deal of care, and we make these pure cultures in our laboratory.

For many centuries yogurt has been known in Europe and the other countries of the East under different names. Although its introduction into this country is of comparatively so recent a date, it is safe to state that no other modern scientific innovation has been of greater benefit to the nation or accomplished more for the health and well-being of the vast army of chronic sufferers from gastro-intestinal maladies.

ANNUAL CONFERENCE

(Continued from page one)

Horace Fletcher, president of the League, and Dr. J. H. Kellogg, chairman of the executive committee. At the close of his address, dealing with the more recent developments of his own special campaign, Mr. Fletcher called attention to the object of the Health and Efficiency League, and gave an opportunity for joining the League, when several hundred people handed in their names, requesting information concerning the League, its requirements and objects.

Doctor Kellogg's lecture on

"The New Hygiene"

excited much comment, and his statements and conclusions were strongly endorsed by every speaker who followed him on the program. This address will be published more fully in a succeeding issue of the BATTLE CREEK IDEA.

Five regular meetings of the Health and Efficiency League were held in the Hall of Philosophy, an outdoor auditorium, having no walls, the roof being supported by columns. Not only the auditorium, but the surrounding terraces, were needed to accommodate the large audiences which attended every meeting and listened with intense attention to every word uttered from the platform. At the close of each address opportunity to ask questions bearing on the topic discussed was extended to the audience. Many of these questions were of very great interest and with the answers added greatly to the effectiveness of the occasion.

At the First Meeting of the League

Dr. J. H. Kellogg presided, and introduced Dr. J. W. Seaver, head of the Chautauqua School of Physical Education, who spoke on "The Benefits of Outdoor Living." His criticisms of those who habitually grumble at the weather were well directed and pertinent. "Learn to enjoy the weather whatever it may be," said Doctor Seaver. "Every state of weather has its joys and blessings, if you will but quietly appreciate them, and there are very few occasions when the air out of doors, be it wet or dry, cloudy or bright, is not better than the air indoors." At this meeting Doctor Kellogg spoke briefly of the agitation for a National Department

of Health, for which the Health and Efficiency League is working in conjunction with the Committee of One Hundred and other health and medical associations. The speaker intimated that the opposition to the measure now before Congress, known as the "Owen Bill," and providing for the establishment of a National Department of Health, which had so suddenly arisen, could have no other source than the fears of patent medicine manufacturers that their enormous profits would be menaced by such a measure. Christian Scientists and others have been inveigled into this idea by the representations of the patent medicine men. This opinion was most emphatically endorsed on the following day by Dr. W. H. Wiley, Chief of the U. S. Bureau of Chemistry, who declared that it was not difficult to explain where the great sums of money came from that had been spent in opposition to the proposed public health department.

At the Second Meeting of the League,

held on Thursday, Doctor Kellogg spoke at length on the "Dangers of Fasting," which he regards as one of the most plausible of dietetic fads which have recently come into vogue. He explained in an untechnical manner the effects of fasting upon the body, and showed very clearly that a prolonged fast results in far more harm than good. Food is fuel to the body, and supplies not only animal heat and force, but is needed to repair the waste tissues and vital organs. When a person goes without food he is simply living on himself, gnawing his own bones. The speaker contended that fasting, especially for a prolonged period, is not only unnecessary, but actually harmful. The body is fully equipped with organs whose business it is to eliminate poisons, and if they are given a fair chance will do their work effectively and speedily, without the aid of fasting. Fasting not only does not aid elimination, but actually adds to the poisons already accumulated in the body and hinders their elimination.

At the Third Meeting of the League,

held on Thursday evening, the chief topic of discussion was "Fletcherism," the principal address being followed by a question box dealing with the merits of various diets. The subject was taken up at this time in Mr. Fletcher's absence in rather an informal way, as an introduction to his address on the following day, and to prepare the people more fully to appreciate the subject as presented by Mr. Fletcher. The first speaker of the evening was Dr. Jas. A. Babbitt of Haverford College, a leading physician of Philadelphia. He paid a high scientific tribute to "Fletcherism," claiming that thorough mastication assures proper metabolism, and that the measure is extremely important as a means of strengthening the defenses of the body against disease. Doctor Kellogg gave a brief explanation of the manner in which mastication aids digestion. Mastication is the first step of digestion, and failing in this all other stages of the process must be defective.

On Friday, the last day of the session, Mr. Horace Fletcher addressed the Assembly on "Fletcherism," as the subject of thorough mastication has come to be denominated.

Most of the time of the two meetings over which he presided was devoted to the asking and answering of questions, his formal addresses being concise.

At the close of the session the following resolutions were presented by Dr. Wm. W. Hastings, of the Battle Creek Sanitarium, and after a brief discussion were adopted:

"WHEREAS, The school-going period of life is that during which most acquired defects are developed, being at the same time the plastic period of life during which most can be done in the direction of the mitigation or eradication of inherited defects:

"Resolved, That the study of questions relating to physical fitness and efficiency should occupy a more prominent place in the curriculum of our public schools, academies, colleges and universities, and that thorough knowledge of physiology and eugenics should be made a requisite for all college and university degrees; and,

"Resolved, That the improvement of the health and physique of the student during his school life should be as definite and as constant an aim of the instructor or the professor as his mental or ethical improvement; and,

"Resolved, That the Executive Committee of the Health and Efficiency League of America be hereby requested to make an extended inquiry into the question of health instruction and training in public schools, academies, colleges, and universities, and publish the results of the same.

"WHEREAS, The question of race degeneracy is one to which attention has only recently been drawn, and one the facts of which are as yet very imperfectly known,

"Resolved, That the Executive Committee of this Association be urged to make an extended inquiry by means of circulars, special research by experts, and by other practical means, for the purpose of obtaining more exact and definite information upon this vitally important question; and

"Resolved, That the National Breeders' Association, the American Physical Education Association, the American School Hygiene Association, the Society for the Prevention of Infant Mortality, and all other kindred associations devoted to physical education, heredity or eugenics, be invited to co-operate with this association in the proposed inquiry."

The adoption of these resolutions is significant that the Health and Efficiency League is fully awake to the work with which it stands face to face, and to the serious importance of the problems with which the League has to grapple.

SUNDRY QUESTIONS

(Continued from page one)

to take care of the body. The result is that the fatigue poisons collect around the nerves and the nerve cells, and the nerve tissues. Nerve tissues are normally alkaline in reaction. The poisons are acid in reaction, and there is a tendency for the acid substances to collect around some of the more delicate substances, and that may be one factor in producing nervous exhaustion; and other con-

(Continued on page four)

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SELF-DEFENSE

SELF-DEFENSE has been styled the "noble art," and is properly regarded as one of the essential instincts of life. Self-defense is excusable in the eyes of the law, even if it results in the taking of the life of the invader. So far as outside interference is concerned, men do not usually need to be encouraged to resent an infraction of their rights, or any demonstration that interferes with their welfare or enjoyment. It is usually regarded as a show of real manhood to be quick to resist encroachments, and the average man will be aroused to wrath on very slight provocation if he imagines that some one is invading the sacred precincts of his personal reputation, dignity, or property.

There is one enemy, however, who most frequently inflicts real damage upon us, whom many people have not yet apprehended, whom many people do not have the hardihood to resist, and whose incursions and depredations many people seem even to enjoy and encourage. This enemy of ours is subtle and deceitful, he makes us think he is working for our good, when in reality he is robbing us of our most precious treasures. He flatters us that he is seeking our elevation, when he is really degrading us; he makes us think that he is imparting great strength to us, when all the time he is undermining health and weakening the very sources of our vitality and life.

We need to be aware of this wicked and vicious foe to life and happiness, for he is not far away from every one of us. Indeed, he is very close at hand, and yet, few realize his presence, or his insidious workings until he has gained such an influence over them that they are almost at his mercy; they awake to the situation, perhaps, when they are being dragged by him down into his dark abodes, and even at the gates of his miserable dungeon.

Is it possible, you ask, that we are beset by such an agent of evil as this? Surely we are, and every one is in the greatest danger

of being captured by his wiles and destroyed finally by his cruel machinations against us.

Having said this much, you will think it high time that we point out this desperate character. We surely ought to do so very plainly, and yet we hesitate to speak his name, because he is the most intimate friend that many of us have. He is more to us than husband or wife, than brother or sister, than child or parent. But the truth must be told, and so we have to tell you that this sinister foe is the person we live with.

Are you angry now, as you think of your dear wife or husband, and say, "The awful idea! The person I live with is the very embodiment of goodness, he or she is no enemy of mine!" To be sure, you are quite right, but you have overlooked your most intimate companion; for *your great enemy is your own natural self*. He is selfish, sensual, deceitful, unconscionable, carnal; a glutton, and a drunkard, and everything that is bad and degrading.

You object to this description, do you? Well, that is what we have already said; few people are aware of the real character of their animal natures, and where they would lead if given unrestrained control over the life and habits of the individual. There are several restraining influences which are against our giving ourselves over to such control; we have self-respect, we have moral principle, we have some fear of consequences, and perhaps of God, before us; we have some regard for those around us, and especially for those dear to us; there is a strong voice of protest sounding in our ears from conscience against the rule of our natural selves, and so we have not gone clear under the dominion of this malevolent being that all the time clamors for our attention and indulgence.

But it is well to be fully aware of his presence, of his true character and designs. For illustrations of this we have but to look at the fate of all men or women known to us who have yielded to the dictates of their lower natures. They have made the most doleful and unspeakable shipwreck of life, gone down to ruin and disgrace before they had lived out half their days. Others we have known have dallied with this arch-fiend more or less and yielded to his suggestions to some extent, but they bear in their bodies the marks of their folly.

Defend yourselves, ye men and women, against this enemy of all good! Assume the reins of your own lives and pursue to the death this insinuating rascal who seeks to allure you into forbidden paths. Through appetite, through passion, through avarice, and the enticements of sensual pleasures he seeks step by step to undermine health and morals, to enslave the body, to entrap the

soul. Give him no quarter, and no hearing; no place in your counsels and no hold upon your ways. We even advise you to kill him dead.

ANNUAL CONFERENCE

(Continued from page three)

ditions also cause the accumulation of these poisons around the nerves, and the nerves become irritated, and the person complains of nervous exhaustion. A great many cases of nervous exhaustion are aggravated by the fact that the skin becomes blanched and does not have a proper amount of blood in its circulation. The internal circulation of the body around the nerve is increased, and there is a congestion which causes an irritation of the nerve, so that it is not only due to a toxic condition, but also to a condition in which the circulation is thrown out of balance.

This condition

Can be Permanently Cured.

The cure for it is just simply the opposite of the cause. One must secure good, thorough elimination through the pores of the skin, and through the kidneys, and must take such exercise and treatments as will stir up these poisons that are accumulating in the body. The mechanical Swedish department is the agitator of the Sanitarium; it is the mechanism by which we stir up folks, and stir up the poisons and wastes and get rid of them.

I have at my residence an acetylene gas plant, and when I want to renew the carbide I have to turn a little crank to stir up the ash that is collected in the bottom of the tank, so that it will be washed out when the water is drawn off and fresh water put in. If I should simply draw the water off from the tank, there would be an accumulation of the ash left in the bottom of the tank, and very soon my gas plant would fail to work, because it would become clogged. That is precisely what nine-tenths of the people are doing with the poisonous wastes of their bodies. The ordinary eliminations of the body are being carried on in the usual way, but people lead sedentary lives, and fail to carry on sufficient muscular activity to stir up these wastes so that they will be thrown off in the general stream of wastes that is being carried off from the body; so, in the mechanical Swedish department, we stir up these wastes and get rid of them; and that is one of the ways in which nervous exhaustion can be cured permanently.

Nervous Exhaustion is a Sort of Slavery

to poisons; a person gets under the thrall of these poisons and can not get loose; his troubles become magnified to him and look a great deal worse than they really are. His condition produces a peculiar toxic effect that makes every trouble look a good deal larger than it really is. His nerves exaggerate things to him, and he thinks he is worse than he is; he exaggerates symptoms, and things that ordinarily would not be thought of any importance at all appeal strongly to the man as being very great difficulties. The son of a patient came into

the office and said, "I do not know what is the matter with Father lately, for when he gets up in the morning he sits on the bed for an hour and a half, deciding which pair of trousers he will put on; and he will take down one coat and lay it over the bed; then he will take down another coat and lay it over the bed, and it takes him an hour or so to decide what coat he will put on." The difficulty of deciding is so magnified in that condition of nervous exhaustion that a person can not even decide a little thing; it looks like a great undertaking to him. That is a toxic condition.

Of course, as you have often heard here, the individual is often intoxicated by toxins that are produced in his own digestive tract. But the individual that is cured of nervous exhaustion must remember that in order to hold the liberty which he gains when he is made free from the toxic substances that enslave him, he must recognize the absolute necessity of adopting such habits of life as will keep him from relapsing into that unfortunate state, when his last state will be worse than the first.

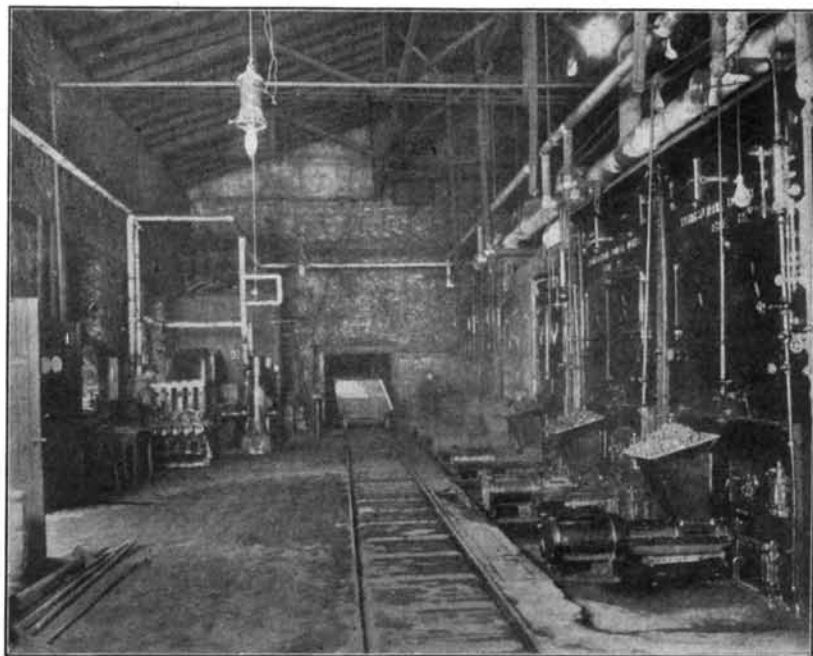
What Effect Does Electrical Treatment Have upon the Nerves?

Answer.—There are three kinds of electrical treatments that are given at the Sanitarium; we might say four kinds, though really but three in quality; and people are very apt to speak of electrical treatment and refer to any one of them. We give static electricity, which was formerly called Franklin electricity, and which is produced by in-

duction. One electrified glass plate revolves past another, a peculiar mechanism by which, through induction, a very high tension is created in a small amount of electricity. That high tension is communicated to the air, so that the whole room is filled

with a very high tension.

I think it was Edison who gave a good definition of electricity as being a very high stress or tension in the ether. It is the same kind of stress or tension that we have in the clouds that produces lightning. That ten-



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Among other special advantages offered are laboratory instruction in bacteriology and chemistry, the use of the microscope, urinary analysis, practical course in cookery and dietetics, medical gymnastics, swimming, anthropometry and open air methods.

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sion is so great that it accumulates in portions of the air that are not so highly electrified, until it reaches a sufficient amount, and then breaks away to the nearest stopping point it can find.

That is the nearest approach we have found to an understanding of static electricity. In traveling through the air the course of static electricity is intercepted by the platform on which the patient sits, and the current of electricity pours through his body. And the effect is to cause a stress or tension in the ether which fills all the interstices or cells of the body; for, remember that our bodies are not solid, but there are minute spaces between molecules of tissue filled with ether, which can be put under stress or tension by static electricity, so that the metabolism of the body in a peculiar way is stimulated by this natural stimulus, as it can be stimulated in no other way. There is no other mechanical means, or other means of any kind, with which the same kind of stimulation of the ether in the interstices and in the cells of the body can be produced; so we get splendid results from the use of static electricity in that way. The tension may be illustrated by the way the hair stands up, each hair repelling another, so that the hair stands up on the head.

One Evening an Old Soldier

came into the static room who was thoroughly bald; he did not have a hair on his head. He sat down on the platform and felt the same sensation everybody feels of the raising of the hair on the head. Immediately he clapped both hands on his head, and said, "My hair is standing up all over my

head." The sensation is the same whether the hair is there or not. That sensation is felt by all the cells of the body; it will awaken them when nothing else will wake them up. So, sometimes people who are not very active secure very good results from it. Static electricity may have a stimulating effect upon the nervous system, or one that is not stimulating, depending in part upon the method of application of the treatment. And the principal reason why static electricity is so stimulating to some individuals is because when the individual sees the big machine and hears the sparks snapping around, he becomes nervous and wonders if he is going to get a severe shock; and he is stimulated or excited instead of getting the normal effect of the electricity. But when he is accustomed to it so that he can lay excitement aside, there is no other treatment which will give so soothing an effect, if that is the effect desired.

One patient who came into the static room some years ago was so very nervous that the moment she stepped into the room she began to tremble, and said, "I don't dare to take this treatment; electricity always makes me so nervous." I assured her that the treatment would be very mild, and urged her just to try it for this one evening. So I went through all the motions of giving her the treatment without any electricity at all, except the small amount in the air from the treatment that had been given before. And at the close she said, "Doctor, that is the best electrical treatment I ever had." I knew the electricity would do her no good until she could overcome the nervousness. Afterward I put on the current very mildly, and gradually increased it until the young lady received the effects the physician desired, and was able to sleep better than she had ever slept before, and lost all fear of electricity. The fear of electricity is stimulating to some people, but when they get rid of that electrophobia they will be able to take treatments that will do them good.

We Have Sinusoidal Electricity,

in which there is an alternating current that flows first in one direction, then in another, through the tissues of the body, and stirs up the metabolism. It does in a very gentle way for the tissues of the body just what the mechanical Swedish movements do in a more vigorous sort of way. In the mechanical Swedish department we stir up the coarser tissues in a vigorous way, and promote the metabolism; but still there will be need of finer vibration, a stirring up of the metabolism, of nerve tissue and the delicate tissues of the body.

So that, in my opinion, static electricity, sinusoidal electricity, and Faradic electricity, which is the kind you get from the little buzzing box you have at home—all those forms of electricity are purely mechanical in their effect. The amount of real electricity you get in those forms is infinitesimal; it is very small, not enough to ring an electric bell. There is one form of electricity in which we do receive a large amount of electricity, and that is galvanism.

Galvanism is a Constant or One-Direction current of electricity supplied either by chemical agents in the form of a battery or by a

dynamo which may be run by steam or water power, producing a constant current of such voltage and amperage as required. In treating disease we use only a very small fraction of the current required for mechanical arts. Its effect on the body is varied according to the amount and nature of the application. The positive current of galvanism produces a sedative effect upon the nerves and decreases the amount of blood that circulates through the tissues to which it is applied, while the negative galvanism acts as a stimulant to the nerves and increases the amount of blood that courses through the tissues in the field of operation.

Both positive and negative currents can be used to contract muscle tissue, the strength of the contraction being varied by the amount of current and the number of interruptions given in the current. Galvanism also has another effect which is not possessed to any degree by any of the other electric currents, namely, it is capable of producing chemical changes. This is sometimes utilized to promote the action of the digestive juices. It is used locally also to destroy or dissolve new growths or diseased tissue. The latter effect is known as electrolysis, and has proved of great service in the treatment of numerous diseased conditions.

When the Physician Prescribes Galvanism

for a patient, he accompanies his prescription with directions as to the kind of application to be given, and the strength of the current. One familiar with the effect of hydriatic measures or baths will see that the effects of electricity are similar in kind, but they differ in the degree of effect and the tissues which are susceptible to them. For example, one can get a much stronger stimulation along the course of diseased or inactive nerves by the use of negative galvanism than

by any other procedure. For this reason, negative galvanism is used very effectively in treating paralysis, numbness, and other conditions depending upon inactivity of the nervous system.

General galvanism to the spine, associated with a negative local application of galvanism to the abdomen, is a very useful combination which is often used in nervous disorders associated with digestive disturbance.

The galvanic current is the most expensive current to produce for treatments and requires the greatest skill in handling. It is never available for home treatment, and can only be administered under the direction of a skilled physician. The chemical effect of the galvanic current is manifested by the accumulation of certain chemical substances which are attracted to the negative pole of the galvanic current, and other chemical substances which are attracted to the positive pole. Physicians take advantage of this peculiar effect of the galvanic current to produce changes in the metabolism, and in the chemical character of the tissues of the body for therapeutic purposes.

There is no great amount of mystery or occultism in the effects of electricity upon the body. It represents purely scientific results obtained by fulfilling the conditions, which can in this day of accurate instruments be maintained with the utmost precision, and the results are just as easy to determine as in any other therapeutic measure. Electricity applied in this way is daily proving itself a very valuable factor in therapeutics, and while it would be a mistake to suppose that electricity would cure everything, it would be equally as great a mistake to neglect the use of galvanism in cases where it is especially indicated, and where the individual can derive benefits which could not be obtained in any other way.

THE MEDICAL MISSIONARY

An Illustrated Monthly Magazine Devoted to the Interests of Home and Foreign Medical Missions

Contributions direct from all parts of the field represent the work of medical missions in various parts of the world as carried on by all denominations.

A Medical Department is conducted by J. H. Kellogg, M. D., Superintendent of the Battle Creek Sanitarium.

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Three journals are published at the Battle Creek Sanitarium:

The Battle Creek Idea (Weekly)	\$1.00 per year
Good Health (Monthly)	1.50 " "
The Medical Missionary (Monthly)50 " "

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THE very best method for being cool in hot weather is to *keep cool*. We can keep the hot weather outside by simply closing our minds to it, and going on calmly and peaceably about our necessary business. In tropical countries good houses have thick walls and are surrounded by wide verandas. The ceilings are high, so as to provide plenty of breathing room, and the people shut the doors and windows and draw the shades, so as to exclude the hot winds and even the heated light. The consequence is that the air in the rooms is delightfully cool. In this country we are accustomed to throw doors and windows wide open, and the sunshine and wind carry the heat to all parts of the house.

So in actual life, we throw ourselves open to the heat and worry, and fret ourselves into a continual heat and sweat, when if we would live quietly within ourselves, and rest in the coolness of our own blessings, we should escape the suffering many of us invite by our very unrest.

GREAT LAKES MAP

Send for Interesting
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The D. & C. Line, which operates daily steamer service between Detroit and Buffalo, has published a pamphlet containing the largest map of the Great Lakes, showing routes to all summering places. You should have one to plan your vacation. A request with two-cent stamp enclosed will bring it. Write now.

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ARRIVALS

THE list of arrivals at the Battle Creek Sanitarium for the week ending July 24 is as follows: G. Herman, Tex.; Wm. Lohmeyer and Miss Norton, W. Va.; Mrs. Enos Smith, Mass.; Mrs. E. E. Tauzer and children, Tenn.; Miss Mary J. Hand, Mont.; W. R. Graham and wife, Tex.; Mr. and Mrs. Joseph Hoag, Mo.; Geo. Shepard and Frank Shuger, Ind.; Mrs. W. A. Buntin, Tenn.; C. A. Bergfeld, Mo.; P. C. Von Gilder, W. Va.; Mrs. K. A. Stinecomb, Ohio; Mr. and Mrs. G. D. Able, Mo.; Henry Shafer, O.; J. S. and Wm. B. Thompson, N. J.; L. S. Marshall, Okla.; I. Blumberg, Ind.; Mr. and Mrs. T. P. Moody, Tex.; S. D. Chittenden and Mrs. E. A. Chittenden, Fla.; Governor Richard Yates, Ill.; S. Gluck, Ala.; C. A. Craig, Tenn.; Mr. and Mrs. J. A. Sackley, Chicago; Mr. and Mrs. J. C. Petrie and Mrs. M. M. Petrie, Ky.; H. W. Timbrook, Ind.; Mr. and Mrs. Chas. E. Krauter, Boston; Jacob Kolb, Detroit; Mrs. Edwin Terrele and Mrs. Albert Lasater, Tex.; A. H. Marshall, Mo.; W. L. Kellogg, Cincinnati; R. L. Harmon and wife, Ala.; Mrs. John Werner and children, Pittsburgh; Mrs. C. L. Crane, Mo.; Jas. N. Reynolds and wife, Ill.; Mr. and Mrs. J. L. Vaughn and Miss Effie Casey, Tex.; Mrs. Julius Meyenburg, Tex.; Jos. E. Carnes, Tenn.; C. M. Keene, Mich.; Mrs. Helen Roberts, Mo.; Chas. E. Well, Tex.; Mrs. J. S. Drummond, Tex.; Fred Oliver, Mo.; Mrs. J. H. Anderson and Mrs. Thos. J. Duncan, O.; Mark M. Cohn, Ark.; C. F. Moore, Mich.; Joe Mattox and wife, and Chas. J.

Pretzman and wife, O.; T. P. Alexander and Mrs. C. A. Alexander, Miss.; Mrs. A. E. Paddock, China; Isabel A. Boggs, and Mr. and Mrs. W. P. Colburne, Ill.; Mr. and Mrs. S. I. White, Mo.; Mrs. Nellie B. Reby and Mrs. Florence G. Schwarz, Cincinnati; Mrs. E. T. Long, Mich.; G. W. Wilson, Va.; Mrs. Lucy Lyman, N. Y.; Mrs. Geo. Hamm, Mich.; I. N. McLaughlin and wife, Ind.; Mr. and Mrs. J. T. Jones, Ala.; Julia Meadows, China; Mark M. Cohn, and Mrs. G. Belding and son, Ark.; Mrs. A. W. Reed, Ind.; H. H. Hays, wife and child, Miss.; E. M. Bryant, O.; E. C. Craig, Ill.; Mrs. Sue S. Leach and Mrs. F. E. Milburn, Cincinnati; Mrs. Earl Russ, O.; A. D. Dorman, Chicago; W. F. Childs, Boston; W. J. Bryan, Neb.; Mrs. Mary C. Mead, Brooklyn; Madeline V. Mason, O.; E. G. Gibbons, Tex.; Robt. L. Owens, O.; Henry M. Butler, Mo.; J. C. Johnson, Ill.; T. G. Moss, Cincinnati; Xana J. Hibben, Ill.; W. P. Stephens and nephew, and Mrs. J. W. Henderson, Miss.; E. R. Hodgkinson, N. Y.; Mrs. H. G. Douglass, Okla.; R. R. Powell, Tenn.; Chas. Duke and wife, Ark.; Dr. Marx, Chicago; C. G. McCormick, Fla.; W. B. Hamilton, Porto Rico; Col. Geo. W. Bain, Ky.; Elizabeth Studebaker, O.; E. L. Atterbury, Tenn.; D. I. Brody, Des Moines; Mrs. Greenblat and daughter, Chicago; C. Stockman, Jr., Ind.; Mrs. W. O. Davis, Tex.; C. B. Stephenson, Ind.; B. B. Beecher, Tenn.; J. A. Kemp, Tex.; R. F. Leynoor, Ia.; H. Haendle, Detroit; W. M. Evans, Mo.; Mrs. Chas. R. Cross, O.; Mr. and Mrs. D. E. Matthews, W. Va.; Mrs. S. C. Martin and daughter, and Mrs. S. T. Timberlake, Mo.; Mrs. L. O.

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Details of courses are given *in extenso* in the Annual Announcement, which will be sent on application.

LENNA F. COOPER, Director,
Battle Creek, Michigan.

Daniel, Tex.; R. R. Lyons, wife and daughter, La.; F. C. Parshall, Pa.; Rev. John Wesley Hill, New York City; L. J. Monks, Ind.; Mrs. Thos. Fitzgibbons, Ia.; Mrs. C. B. Forman, Tex.; Gustav Messerschmidt and Ben F. Zbinden, Ind.; Mr. and Mrs. T. W. Lintz, Okla.; C. W. Podgett, Ind.; O. L. Hebbert, R. I.; Mrs. F. S. Colvin and child, O.; P. M. Frees, Chicago; Anna Zbinden, Ind.; W. J. Jackson, Mich.; Mrs. Fields and daughter, Ky.; Mrs. Adele V. Holman, Chicago.

News and Personals

Dr. Z. Marx, of Chicago, an old friend and patient of the institution, is again with us for a few days.

Miss Julia Meadows, of Wuchow, China, a returned missionary, is taking much-needed rest in the institution.

Mrs. W. A. Buntin and son, W. A. Buntin, Jr., of Nashville, Tenn., have returned to the Sanitarium for further treatments.

Mrs. Julius Weinberg, of LaGrange, Texas, a frequent visitor at the Sanitarium during the past fifteen years, is again with us.

Dr. Whitney-Morse left us last week for Dublin, Ireland, where she will take up post-graduate work in the Rotunda Hospital.

Mrs. Gerow, who has been visiting her daughter, Miss Minnie, for the past few weeks, has returned to her home in Santa Barbara, Calif.

Mrs. Elwell, mother of Dr. Loiza Elwell-Johnston, is visiting Dr. and Mrs. W. H. Riley en route to Ghent, Belgium, where she will make her home with Doctor Johnston.

Mr. C. F. Moore, of the Diamond Crystal Salt Co., St. Clair, Mich., spent a few days with us last week, taking treatments, and also visiting Doctor Eggleston and family.

Miss Margaret Stewart, who has been visiting her brother, Dr. C. E. Stewart, and other relatives around the institution, has returned to her work as nurse in Porto Rico.

Miss A. E. Paddock, of Shanghai, China, is among the recent arrivals at the Sanitarium. Miss Paddock has been working with the Y. W. C. A. in that country. She attended the recent great Missionary Conference in Edinburgh, and will speak to the Sanitarium family on next Sabbath afternoon at four o'clock on the east lawn, giving an account of that great meeting. All are invited to be present.

The Battle Creek Chautauqua closed its annual assembly on the evening of the 24th inst., after the most successful season that it has ever had. The talent secured was of a high class, and the attendance was correspondingly good, a large new tent being well filled on every evening and a large num-

ber of people there during the day. The Chautauqua committee feels much encouraged at the success of the undertaking thus far.

Among the guests of the Sanitarium during the past week were the following Chautauqua speakers: Ex-Governor Richard Yates, of Illinois; Mr. A. R. Dugmore, of England, who hunted in East Africa in the

same region as Mr. Roosevelt, with a camera, and was successful after taking great pains and by perilous risks of his own life, in obtaining many excellent photographs of wild animals; Hon. Wm. J. Bryan, the famous orator; Rev. John Wesley Hill, D. D., of the Metropolitan Temple, New York; Col. Geo. W. Bain, of Kentucky, who addressed the Chautauqua on "A Searchlight of the Twentieth Century."



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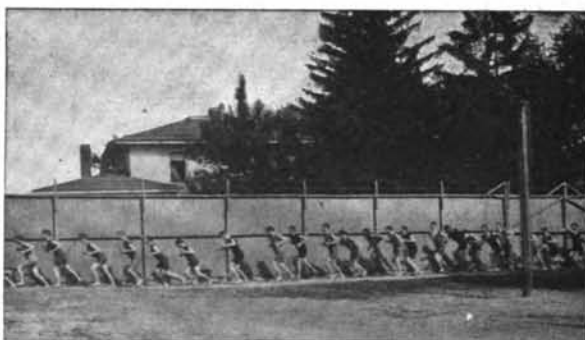
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Tuition for the full year, \$100, including Summer School; for the rest of the year, \$75. For the Summer Term alone, \$35. Board \$3.00 to \$3.50 per week.

Unusual opportunities are given for earning money toward expenses.

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THE · BATTLE · CREEK · IDEA



Vol. III No. 35

BATTLE CREEK, MICH., AUGUST 5, 1910

Price 2 Cents

Sunlight the Source of Energy

How Vital Energy is Gathered from the Sun by Plant Life and Stored up in Fruits, Nuts and Grains—Lecture by Dr. W. H. Riley

Food is a subject that we all have to do with. We eat at least two or three times a

ELECTRICITY IN THERAPEUTICS

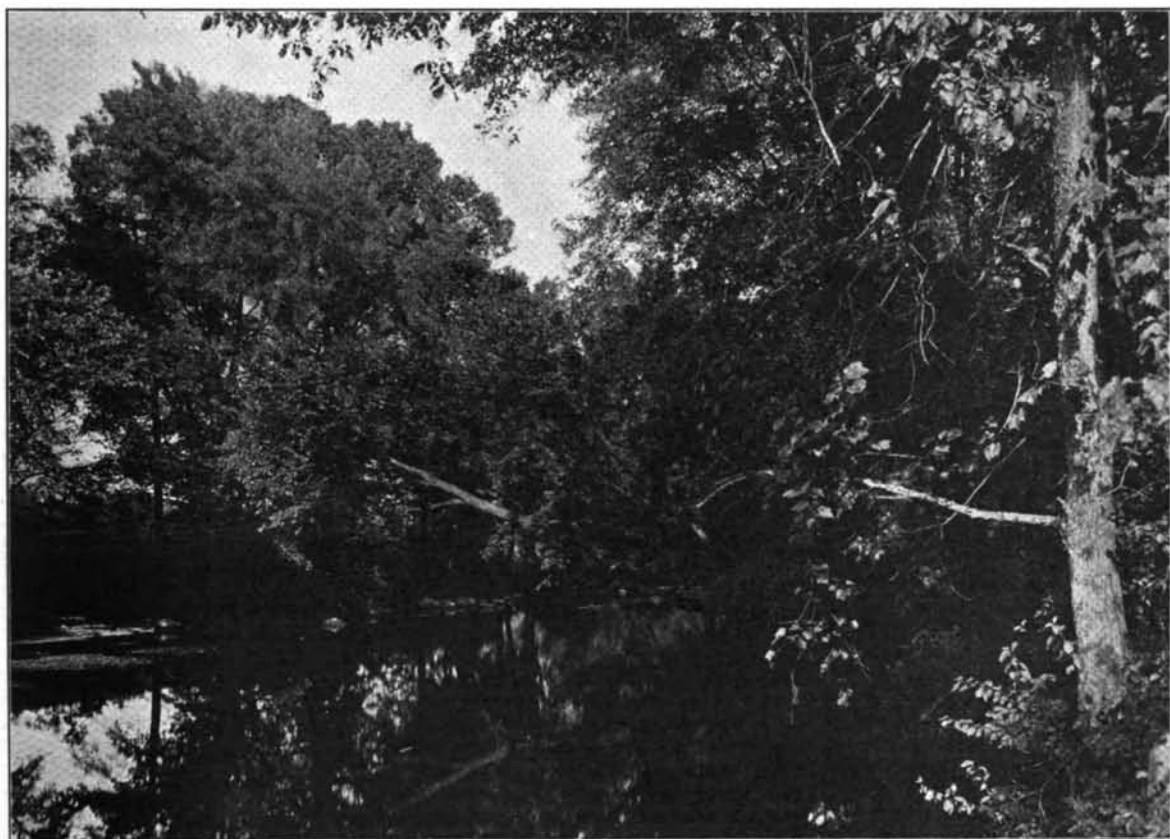
How the Mysterious Force is Utilized in Treating Disease in the Sanitarium

APROPOS to the article in last number in which different forms of electrical treatment are discussed, it seems timely to speak more

High Blood- Pressure

Its Cause, Effect, and Remedy—A Lecture in the Sanitarium Parlor by J. H. Kellogg, M. D.

THERE are many causes of high blood-pressure. The general cause is high living,—or, rather, I should say low living, wrong



A SUMMER SCENE NEAR THE SANITARIUM

day, and sometimes oftener. People generally pay very little attention to the matter of food. The farmer studies carefully the food that he feeds his stock; he tries to feed the stock in the most profitable way so as to get the best returns. But the human family pays very little attention to food, as a rule.

(Continued on page four)

particularly of the electrical system of the Battle Creek Sanitarium.

Electricity is as old as nature, and has long waited upon the awakening of human genius to appropriate its proffered help, willing to bide its time, though on frequent occasions reminding the public of its existence and

(Continued on page three)

living, perverted living, our abnormal, civilized mode of life. Most people among the civilized races who die of old age, die of high blood-pressure. The man who dies of apoplexy, dies of high blood-pressure. The person who has gradually increasing feebleness as old age comes on, finally dies of high blood-pressure.

The Situation is This:

The arteries have become narrowed, contracted, and the heart requires more force to drive the blood through in order to supply the brain and other parts with the needed blood.

Finally, the heart grows weak and is unable to do this abnormal amount of work. Think how hard your heart would work if you were obliged to climb a steep hill all the time, or to climb stairs steadily day and night. When a person has high blood-pressure, his heart has to work just like that, both while he is asleep and awake. So when one becomes old, or ages prematurely, the feebleness is usually due to the fact that the heart has become tired out and is failing to do its work, not being able to supply the requisite amount of blood through the small arteries that have been reduced in size by a process of hardening.

In arteriosclerosis or hardening of the arteries, there occurs a gradual thickening of the arterial wall, so that the central lumen becomes much reduced in size. At length the narrowing becomes even greater and the walls of the arteries become less and less elastic on account of the deposit of lime which accumulates in them. Now in order to get the same amount of blood through this narrow opening, the heart has to work with a great deal more vigor, until it becomes tired out and weak and can no longer do this. Then the supply of blood to the brain begins to fail, and the supply to every other organ likewise, with the result that they begin to shrivel just as a tree does whose supply of water has been cut off.

The Cause of Premature Old Age

and high blood-pressure are one and the same. I believe old age is the result of this degeneracy of the blood-vessels. But now, a little more specifically, What are some of the conditions and habits of civilized life which cause high blood-pressure? Tea and coffee, tobacco, alcohol, mustard and pepper, persauce and ginger,—all of these and such things are unquestionably causes of this narrowing and hardening of the arteries. They are, however, not quite so universal as another cause, and that is meat-eating or a flesh diet. You are all thoroughly aware that I am opposed on principle to the practice of eating flesh foods. I am glad to have a new and good authority to give you at this time. It is the official document issued by the United States government. It is part of a report of the committee on the conservation of national resources, which was appointed by President Roosevelt. I refer to the *Report on the National Vitality, Its Wastes and Conservation*, prepared for the National Conservation Committee by Prof. Irving Fisher, chairman of that commission. In the compilation of this report, Professor Fisher drew upon the literature of the world, and upon the whole statistical collection of every nation, including the United States and every other government. Under the direction of and at the expense of this government, he sent a large number of experts all over the United States, including a visit to this institution, for the purpose of getting hold of facts.

The following extract is on the question of "Diet and Fatigue," page 42: "It has long

been known by physiologists that the putrefaction in the intestines is the putrefaction of protein." (Protein is lean meat, white of egg, etc.) "But only recently have they raised the question whether the reduction of the protein element of food would be feasible, and whether the resulting reduction in putrefaction and auto-intoxication might not be advantageous. These questions are still under debate, but the trend of physiological opinion is increasingly in favor of protein reduction. Practically, this means a lessening of the consumption of lean meat and eggs." Professor Fisher's brain is clear enough to enable him to see this, and his mind is free enough from prejudice to permit him to write it down and put it in an official document. Professor Fisher is professor of logic, and head of the department of political science of Yale University, and to prove a thing to him means to prove it beyond the possibility of a doubt.

The Report Continues:

"Evidence has accumulated, though it has not yet been put in proper experimental form for absolute proof, that auto-intoxication is not only an exceedingly common affection, but also the chief cause of undue fatigue." So when you have neurasthenia and feel tired, you know what is the matter. He goes on in finishing the paragraph and shows how a practical, non-medical man reasons. "Most persons know the heavy feeling and disinclination for exertion which generally accompany constipation, and, on the other hand, the relief which comes with a complete evacuation. Leaving auto-intoxication aside, Professor Chittenden is of the opinion that waste products from combustion of protein are probably responsible for fatigue. Whatever the explanation, Professor Chittenden found in his classical experiment with a squad of soldiers, that strength and endurance were increased by a reduction of the protein, by leaving beefsteak out of the dietary almost wholly, and by cutting eggs down very low."

Sixteen Soldiers

were placed for six months on a diet containing a much smaller quantity of protein food than that which is prescribed by ordinary dietary standards, and containing only one-third of what is demanded by common American usage." These soldiers were required to live for six months on one-third as much protein as the ordinary American family requires. They increased in vigor and endurance as much as ninety per cent. Comparative experiments on seventeen vegetarians and twenty-five meat-eaters in the laboratory of the University of Brussels have shown little difference in strength between the two classes, but a marked degree of superiority of the vegetarian in point of endurance. In nearly all the conditions when men are subjected to tests of endurance, the question of strength does not come into the consideration at all. One very often sees an apparently frail little woman going through things that an ordinary man would die under.

Endurance is an Altogether Different Thing from Strength.

Now, the non-flesh eater has endurance; he has toughness; he can stand hard usage for

a longer time than the meat-eater. This was proven at the University of Brussels by scientific investigation. The average superiority of the vegetarians was fifty-three per cent. The vegetarians recuperated from fatigue more quickly than the meat-eaters. To what extent, if at all, the superiority of the vegetarians was due to vegetarianism as such, and to what extent to the fact that they made a more moderate use of protein, can not be exactly determined, although the evidence indicates that the lower protein is the essential factor.

In another experiment, comprising forty-nine subjects, and contrasting those on low and high-protein diets, it was found that the low-protein subjects had greater endurance. Reference is made for proof of this to a paper on the "Influence of Flesh Eating on Endurance," published by Professor Fisher in the *Yale Medical Journal*, March, 1907: "For instance, the test of 'deep knee-bending' showed that the low-protein men could frequently exceed one thousand, or in one case reach two thousand four hundred, where the high-protein subjects could seldom exceed four or five hundred times."

Now, it may interest you to know that the low-protein men were

Battle Creek Sanitarium Doctors and Nurses,

and that the high-protein men were Yale athletes,—quite a difference between the two classes of men. They were the finest athletes of Yale, selected by Professor Anderson of the Yale gymnasium. Professor Fisher came here and subjected our doctors and nurses to three tests about which you may be interested to know. One was holding out the arms at full length horizontally until they could hold them straight no longer. If they let them down and could not raise them up again, that ended the experiment; but if they came down, and could be raised again at once, all right. Another test was to bend down to the ground, bending the knees and hips, with hands upon the hips, and rise again. The third experiment was to lie upon the back and raise the legs to the vertical position, once every two seconds. Our first man held out his arms for fifteen or twenty minutes, and the next man half an hour. Soon we found our men going up to an hour, an hour and a half and two hours. Finally one held out his arms perfectly straight for

Three Hours and Twenty Minutes!

Professor Fisher then went to Yale and persuaded the gymnasts there to try the same tests. One of the wrestlers, a powerful man, held out his arms for seven minutes, when they began to shake, and in ten minutes his arms had fallen to his side, and he could not hold them up a minute more! Not a single man among the Yale athletes could hold his arms out thirty minutes.

Fifteen of the best Yale men tried the experiment and together made a total of one hundred and fifty minutes, an average of ten minutes apiece for the fifteen men. The fifteen Battle Creek men together made a total of one thousand four hundred minutes,—about nine times as long.

This Means Something

in relation to endurance. In the deep knee-bending test, there were very few Yale men

who could reach the two hundred mark; and when it came to figures above that, only one of them attained to a thousand. Several of our men went to one thousand two hundred, and fifteen hundred. Some of them went over two thousand, and one young man of twenty years of age carried that experiment to five thousand and two movements.

Good Results Seen Here

One of the most delightful things we notice here, in connection with our work with sick people, is that those who come to the Sanitarium with high blood-pressure get a lower pressure within a few days. It usually lowers about twenty points in the first two weeks. Very fortunately, we are able to say to almost every patient with high blood-pressure, if the arteries are not yet chalky, "You are still on saving ground." But in order to be cured, he must turn away from all these causes, and beefsteak is the principal one. It is worse than coffee poison, beer or tobacco. A man with a high blood-pressure who continues to smoke, eat beefsteak and drink coffee, has no hope left.

ELECTRICITY IN THERAPEUTICS

(Continued from page one)

presence by vivid flashes of light athwart the heavens, and sending sudden bolts of dynamite which carried destruction of life and property with them, and manifested the most surprising freaks in choosing its marks, and avoiding other equally accessible objects without any show of reason except what appeared to be pure caprice. At last the hu-

captivity. But, like the old captive giant, it still turns upon its captors and lets them feel its native vim and vengeance, for it is not to be trifled with.

What, then, can a Sanitarium, whose work is to care for the sick and infirm, do with such a subtle, vindictive force, that is always ready to strike upon every opportunity? Men have discovered that electricity has its gentle attributes, and that it is as capable of soothing a pain and calming the nerves, and inducing sleep, as it is of dashing a building to the ground or rending a tree to fragments.

The Battle Creek Sanitarium has always been in the very foremost ranks of those who have sought to avail themselves of the service of this potential energy. Indeed, many of the advance steps in utilizing its forces have been taken here.

About two hundred and fifty horse power is devoted to the generators, and the current is conveyed by cables to various parts of the institution.

Much the larger portion of the supply is used in turning machinery and lighting. But both these func-



STARTING OUT



UNDER SAIL



THE CLIMAX

Among the other signs of the coming on of premature old age, are a change of disposition, of temper; irritability, incoherency, and sometimes confusion and aberration of mind. If you are losing your memory, get your blood-pressure down. A man with high blood-pressure is living in a house which is on fire, and the roof will fall in pretty quickly if something is not done to put it out. The blood-pressure should be one hundred and five or one hundred and ten; but one hundred and forty is the danger line.

Premature old age is a disease, and like many other diseased conditions, it may be avoided, and in its early stages may be cured if only the right means are correctly and intelligently employed. We can not afford—we people of this wonderful twentieth century—we can not afford to become incapacitated for work or for embracing the marvelous opportunities which are our heritage, which lie at our very doors,—opportunities unknown and undreamed of in the days of our forefathers.



WAITING FOR THE CAR IN AUGUSTA

A SUMMER PARTY DOWN THE KALAMAZOO

man race got its eyes open, and cautiously approached the uncanny power from the skies, gradually discovering its secrets, and often tempting its wrath. Finally we have the awful lightning fairly harnessed to the chariot of progress, and like Samson of old, shorn of its terrors and patiently turning the mills of the Philistines who inveigled it into

tions are utilized in the treatment of the sick. The electric light bath or radiant heat is used to a large extent in many cases. It is used in the place of the old Turkish bath as an eliminative measure. Cabinets fitted up with two or three scores of electric light bulbs receive patients, who in from seven to ten minutes receive all the benefits that a half-hour in a stifling Turkish bath room would afford, and several more, with none of the deleterious effects. The electric light bath, though highly eliminative, is also tonic, and not enervating in its results. The light penetrates powerfully the external tissues

and exerts a stimulating effect upon the system.

The electric light treatment may be administered locally to any part of the body, if it is not desirable to expose the entire body. The trunk or the limbs may be treated separately, and by the use of photophore lamps

(Continued on page four)

The Battle Creek Idea

PUBLISHED WEEKLY AT
BATTLE CREEK, MICHIGAN

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VOL. III AUGUST 5, 1910 No. 35

MICHIGAN FAMOUS FOR ITS FRUIT AND ITS HEALTHFULNESS

WE have taken occasion at times to speak of the superiority of Michigan conditions on all general principles, and in regard to its healthfulness in particular. It is a perfectly patent fact that the State is fast coming into recognition as a resort for health-seekers. And this is very proper, since statistics show that Michigan has the lowest death-rate of any State in the Union.

In early days, when swamps and mosquitoes held undisputed sway in some parts of the State, there was some malaria, which then gave Michigan a reputation for fever and ague. But fever and ague is an out-of-date and obsolete disease, and it is now impossible to find any trace of it in this State. With the drainage of the swampy lands and the improvement of the country, ague and malaria have disappeared with the wild animals and the wild men, and it is an indisputable fact that Michigan is foremost in the healthfulness and salubrity of its climate and general conditions.

A recent Chicago paper contained an extended account of the immunity from late frosts, hot winds, and winter blizzards, which the great fruit region of Michigan enjoys through the protection of the great lakes with which the State is almost girdled and is entirely bisected. The cold winds in the spring come down upon us from the great Northwest, and in sweeping over Lake Michigan absorb so much of moisture and warmth as to lose their frosty fury and leave the trees and vines of Western Michigan uninjured. The blizzards which come out of Medicine Hat halt at the borders of the lake. The present season is an illustration of this fact, for the estimated fruit crop this year is eighty per cent of the full crop; and it is not a little significant that the northern part of the State, where water most abounds, is freest from the ravages of frost.

Now, what we want to say apropos the above statements, is that a region that is good for fruit is good for health. The conditions which produce good thrifty trees and

plants, produce stalwart men and women. The same conditions that protect fruit protect human life and health. A region that is merciful and kind to tender trees like the peach, and apricot, and pear, is also favorable to the tender and susceptible human system. And the facts amply bear out this reasoning.

We can well remember the time when one frequently heard strong regrets that the Sanitarium should ever have been located on "some little creek in Michigan." Our reply in those days was in some cases, "Well, it is here because it is needed here." But now the steps which located this institution just where it is are abundantly justified by every consideration. Had we the privilege of picking the institution up bodily and setting it down in any place we might choose, we should say, Let it remain right where it is. For convenience it is ideally located. For location it is ideal, on an elevation that overlooks a beautiful, live, intelligent, quiet, well-disposed, growing city, in a region dotted by scores of beautiful lakes, and interspersed everywhere by running brooks; a beautiful landscape, ever varied and always attractive, a dry, porous soil, plenty of good water, in the midst of the most fruitful country in the world, blest with the highest conditions for health and longevity,—what more could be asked for, or looked for in this world? We are satisfied with the location of the Sanitarium in Battle Creek, and in Michigan. We are more than satisfied; we are profoundly grateful for the providential care that directed in the selection of this very spot.

DOCTOR KELLOGG AT LAKE CHAUTAUQUA

FROM a recent parlor talk by Dr. J. H. Kellogg we gain the following allusion to the great assembly at Lake Chautauqua, N. Y.:

I found there about ten thousand people, many of whom were sick, some of them professing to be well, though their looks and appearance generally betrayed them. I spoke to an audience of several thousand people, and feel warranted in saying that the average people in that audience were not as healthy looking as the people who sit here to-night. Of course, the most of you did not look as well a few weeks ago as you do now.

I found that the people assembled at Chautauqua were exceedingly interested in the question of health, and I was called upon to address them five times in the few days I was there. They were very eager to learn the ways of healthful living. The great question to-day is how to be saved from the woes that are besetting us as a race, and from the awful calamities that are threatening us. I took the opportunity to speak of the evil habits prevalent in society,—evil habits of eating, drinking, dressing, and general living. I told them about the dangers of arteriosclerosis, of

the evils of autointoxication, and when I finished speaking they eagerly gathered about the platform, asking many questions of a personal nature.

One old man came up to me and said: "Doctor, I have smoked two thousand pounds of tobacco; please feel my pulse." His radial artery felt like a pipe-stem under the skin. It was actually broken, and I could feel the cracks in it. I wonder that the poor man is alive at all. I asked him, "Are you still smoking?" "Yes, O yes, I am still smoking." I told him his case must be like the one Sam Jones met in Kansas City. An old man arose after Jones had been lecturing about tobacco, and said: "Mr. Jones, I do not believe what you have been saying here to-night at all. I have been smoking since I was ten years old, and I am eighty-four now, and pretty healthy yet. What do you say of that?" Mr. Jones said, "That means that you are uncommon tough, and if you had not smoked, they would have had to kill you with an axe."

ELECTRICITY IN THERAPEUTICS

(Continued from page three)

still smaller surfaces are subjected to the electric light and its heat. In the special phosphore department strong arc-lights of many hundreds of candle power are concentrated on portions of the body. This manner of treatment is employed in certain skin diseases and in rheumatic and local inflammations.

As a mechanical power, electricity is used to operate the Swedish movement machines of which we have heretofore spoken in these columns. And, as explained by Doctor Read in his lecture reported last week, the effects of the static, sinusoidal, and faradic currents, which are quite largely employed, are mainly mechanical in their operation.

SUNLIGHT SOURCE OF ENERGY

(Continued from page one)

It seems to me this is a very important subject for us to consider in a place where we have opportunity to give the matter careful consideration. It is a very practical question, but I do not think one can settle that question very intelligently until he has an understanding of some of the fundamental principles with reference to it. So to-night I shall try to bring before you some of the fundamental principles with reference to the subject of foods.

The first thing for us to understand is,

What is Meant by a Food.

There are two things in foods that are useful to our bodies, and these two things are material and energy. Food may be defined as any substance that contains material and energy that the body can utilize. A food substance should not contain anything that is harmful to the body; if it does, it is not a food in the best meaning of the term. The material that is in the food comes from the earth, air, and water. This material is picked up by plants in a comparatively simple form. For instance, a plant will absorb CO₂, or carbonic acid gas, from the air; and

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it will also absorb from the earth certain substances that we call salts, such as ammonium salts, potassium salts, sodium salts—in a simple form. By a salt, I mean a substance that has two or more chemical elements in it. For instance, sodium chlorid, ordinary table salt, has one part of sodium and one part of chlorin in each molecule. The term includes not only sodium chlorid, that we have on our tables, but also a large number of other substances; and the plant absorbs these from the earth. These things that the plant takes in are not foods for the animal. Sodium chlorid is not a food in the sense of giving up any energy. It is not a food in the best meaning of the term. And carbonic acid gas is not a food. In fact, the carbonic acid gas is given off by the lungs of the animal as an excretory poison, and the plant takes it up and makes use of it. The plant takes in a limited amount of oxygen from the air, mostly in the form of CO₂ gas, the oxygen being united with the carbon. The plant takes these simple elements and reorganizes them, changes them, and works out of them the starch in food.

The Elements of Foodstuffs Are Not Food

I have said that carbon dioxide is not a food. There is carbon in carbon dioxide; there is oxygen in carbon dioxide; and there are carbon and oxygen in starch. But they are put together in a different way and converted into food for the animal. The plant takes these simple elements and converts them into compounds. The molecule, or the unit that makes up starch and other food substances, is more complex than the molecules utilized by the plant. To illustrate this point clearly, take carbon dioxide and put with it some water—the chemical formula for water is two parts of hydrogen and one part of oxygen—and we have the elements of starch. The formula for starch is six parts of carbon, ten parts of hydrogen, and five parts of oxygen.

We have an illustration here of how the plant takes its material from the air. It takes the carbon dioxide from the air, takes the hydrogen from the water, and unites these together in a chemical bundle, and as a result we have a chemical compound that is neither carbon dioxide nor hydrogen; but it is starch, an animal food. The work of plants is to convert these elements into food in its simplest form. They are not foods in any other way to the animal, but united together chemically in the right proportion they become food; and that is the work of the plants.

Carbon as Such is Not Food

I have told you that a food is any substance that contains material and energy that the body can utilize. There is more material in a lump of coal than in a piece of bread. But the material in the coal is not such as the body can utilize, and hence coal is not food for the body. The coal is full of carbon, and there is carbon in the starch in the bread; but of course no one would think of eating a piece of coal for food. The material in food must be arranged in a particular way. It must be reorganized by passing through a living plant. It must go through the chemical laboratory of the plant before

it can become a food. In fact, all our foods are formed in plants.

Food Material Comes from the Earth,

the air, and the water. It does not come from animals, though we can get food from a piece of meat that comes from the animal. But if we trace that material back to its origin we find that it all comes from the earth, the air, and the water, not from the animal.

All Energy Comes from the Sunlight.

All the energy that we have, or that has ever been in the world, comes from the sun. It comes to this earth in the form of sunbeams. The plant absorbs energy, and by that energy it combines the carbon dioxide, the hydrogen, etc., in what we might call chemical bundles of food. We can not accomplish anything without the expenditure of energy. If we want to move anything, whether it is large or small, a certain amount of energy must be expended in order to do the work; and the same principle applies if we take two substances and unite them chemically, then we have done chemical work, and it takes energy to do it. The energy that the plant absorbs is stored up in molecules of starch when it comes down to earth in the form of sunbeams which are active and capable of doing work. While it is stored up in the starch, it is inactive; it does not exhibit itself in any way. The sunbeam is active; the starch is inactive. They are both energy. A farmer can raise a crop of corn or wheat and can store that corn in his granary for years, and then after many years we can get out some of that grain and eat it, and the energy that is there we use in our bodies in performing any function that the body is capable of performing.

Mechanical and Vital Energy

When we burn coal, it throws off heat, and that heat can be used in making steam, and the steam turns machinery, and the energy is converted into mechanical work. The engine may turn dynamos, which generate an electrical current, and there we have another form of energy. And then the electric current can be conducted up to the house and we are supplied with electrical energy in light, another kind of energy. We put the coal in the furnace, and the energy that is there is liberated in heat and light. We eat bread, and there is latent energy there of such a nature that our bodies can utilize it. The energy of the bread is used in keeping the body warm, and in muscular and mental work. The process that the coal goes through in order to produce this energy is the same sort of process that the bread goes through in our bodies to liberate its energy. In one case, we oxidize the coal, in the other we oxidize the bread. When the oxygen in the air comes into chemical union with the carbon in the coal, energy is given off in the form of heat. When the carbon in the bread comes into chemical contact with the oxygen in our bodies, heat energy is given off. The coal is burned up rapidly. The energy and material that is in the food remains in our bodies for a time, and is expended in heat and activity. Our bodies are active; some of us do manual labor; some, mental work; but in the performance of all of these duties energy is

being expended all the time. We can not do a single thing without the expenditure of energy; and of course, after a time we will have used up all of the energy that is in the body unless a new supply is taken in. And we take that new supply in by eating food. We have a number of

Different Manifestations of Energy.

Energy is not lost. Energy can not be destroyed. It is simply transformed into some other form; it has escaped you. A large amount of energy is used in the body in the form of heat; it is also used in work, in breathing, in excretion of all the glands, in mental operations, the action of the heart; and all of that energy comes from the food.

I told you that the energy that we use in our bodies comes from the sunlight, and this

energy is stored up first in the plant, transformed into starch, and then taken in that form into our bodies. Heat and light are but different modifications of the same energy. The sun exerts upon the earth both forms, and these are absorbed by plants, and stored up in the seeds or grains, as they are stored up in coal. This energy is latent in all food substances, and all food substances originate in the same manner, through the laboratory of plant life. There is no other possible source of food elements. So in eating the cereals, the fruits, and nuts, we are taking this energy at first hand and not using it second-hand after it has been appropriated by some beast, as we do when we eat flesh. Sunlight, then, is the natural source of vital energy, and we are able to gather and appropriate it in this marvelous way.

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ARRIVALS

FOLLOWING is the list of arrivals at the Battle Creek Sanitarium for the week ending July 31: Mrs. John Halliburton, Tenn.;

A. T. Kirk and wife, Mo.; Mrs. A. L. Smith, Mich.; Mrs. E. E. Jackson and Miss E. Brown, Indianapolis; John H. Masten, Mich.; Mrs. J. M. Wolk and daughters, Pa.; Wm. Lasday, Pittsburg; V. E. Grant, Tex.; Mr. and Mrs. E. S. McCandless and daughter, Ga.; C. W. Brown and wife, Kans.; H. R. Furber and Geo. M. Jacobs, W. Va.; R. F. Jackson and wife, Minneapolis; C. Van Gallow, Detroit; Mr. and Mrs. Wm. Scarlett and W. J. Byrne, O.; Maude Hamer, O.; Mrs. E. W. Ballard and John, Kans.; Mrs. E. H. Burr and Margaret Dickson, Tex.; Anton H. Schwartz, Chicago; T. T. Buckner and wife, Ind.; Henry L. Browning, Indianapolis; Mrs. W. Beyhan and Mae, O.; U. J. Lyons, Tex.; Clyde S. Bird, Ind.; P. A. Thompson, N. J.; Mrs. H. H. Hays and Mrs. Sam Henderson, Ark.; Mrs. Frank Burt and Mrs. L. M. Billingslee, Okla.; C. A. Hyland, La.; D. C. Gibbs, Mich.; L. J. Bonham and wife, Ill.; Chas. Hulse, Mich.; Mr. and Mrs. F. W. Schiffen, Tex.; Mrs. L. Beatty, Ind.; Mrs. E. Smith, Mo.; Omar Grantham, Chicago; G. Doutney, New York; H. H. Onstott, Ill.; E. C. Connor, wife and baby, Tex.; Dr. T. F. Beveridge, Ia.; Mrs. J. J. Groves, Okla.; Mrs. S. B. Wagner, O.; Mrs. John P. Herrick, N. Y.; E. T. Long, Mich.; T. H. Daley, Kalamazoo; Robt. Hamilton and wife, Ark.; Mrs. Will H. Sonfield, Tenn.; Mrs. H. M. Oppenheimer, Memphis; John C. Zbinden, Ill.; Mary Stellwagen, Ill.; G. F. Wheeler and wife, Mo.; Dr. J. F. Burnam, and Miss Virginia Burnam, Ala.; Mrs. Geo. Hewes and Miss Dora, Miss.; Theo. Bohner, New York City; L. J. Fultz, Ind.; Mrs. Carrie Maxwell, Okla.; Mrs. B. Wil-

kins, Ill.; Mrs. A. C. Strachley and child, Okla.; W. Weathers, Ky.; Dr. A. A. Gregory and wife, Okla.; Miss Annie Leslie, Chicago; Mrs. G. C. Deubler, Tex.; Archie Hillard, Ia.; Mrs. Anna Levi, Cincinnati; Mrs. W. H. Tarr, O.; A. J. Greif and wife, and H. V. Greif, and Mrs. H. R. Long and child, Porto Rico; Miss Alice Borland, Mich.; Mrs. W. J. Northerass and Leon, Tenn.; S. C. Alexander and Virginia, Ark.; Mrs. Lillian Nehls, Ia.; Edw. H. Alpod, Fla.; Mr. and Mrs. A. Ewing, Ill.; Mr. and Mrs. Jas. A. Puech and daughter, La.; Bishop and Mrs. Collins Denny, Nashville; R. Roy Eldred, Ind.; Mark Russel, Mich.; Mrs. John B. Bain, O.; D. F. Kenady, Va.; H. S. Curtis and wife, Mass.; W. B. Wolf, Chicago; Herbert Funk, and Mrs. W. H. Funk, Milwaukee; Miss Louise Bissell, Ala.; J. E. Davison, Okla.; H. L. Gallagher, San Francisco; Mrs. H. L. Nehls, Ia.; Wm. Wolk and Besse, Pittsburg; Mrs. N. D. Wallace, La.; N. M. Young and Mrs. Young, Duluth; R. L. Harmon, Ala.; Mrs. B. H. Thomas and Russell Thomas, Des Moines; Mrs. W. H. Lintz, Mich.; John Johnson, Edith R. Levedahl and Agnes L. Levedahl, Ill.; Robt. Walker and wife, Mo.; A. S. Foote and wife, Chicago; Mrs. J. A. Kemp and Miss Bertha Kemp, Tex.; C. A. Irwin, O.; A. D. Dorman, Chicago; Mrs. E. P. Kuhle, and Geo. W. Chamberlin, Ia.; Mrs. T. S. Pitkin and Miss Evangeline Pitkin, O.; C. W. Whilmod and wife, O.; C. V. McAdams, Indianapolis; Richard Cronin and D. H. Tolman, New York City; Mrs. K. O'Ranche, Wash.; Ada A. Golin, Brooklyn; Royal H. Mayhew, N. Y.; Dr. L. C. Moore, Detroit; Mrs. B. D. Greif, Porto

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News and Personals

Mrs. H. S. Reed has returned to her duties in the Record office, after a two weeks' vacation.

Dr. and Mrs. Fissette and Mrs. W. S. Wisner, of Brantford, Ont., have registered with us during the past week.

Omar Grantham, of Chicago, formerly a nurse in the institution, has returned to take up work in the nurses' department.

Judge O. O. Provosty, of the Supreme Court of Louisiana, accompanied by his wife and daughter, is stopping at the Sanitarium for a few weeks.

The Misses Sylvia Bills and Beulah Bliss, of the Sanitarium family, left the first of the week for Boston and other Eastern points, where they will spend the month of August visiting relatives and friends.

A party consisting of A. J. Greif and wife, H. V. Greif, and Mrs. H. R. Long and child, of Porto Rico, arrived at the institution during the past week. Mr. Greif is in charge of very extensive sugar plantations and mills in the islands, and visits us each summer.

Rabbi Wm. Rice, of Lexington, Ky., left us last week, after spending a short period at the Sanitarium. He addressed the summer school of Physical Education on the morning of the 29th of July on "Modern Judaism." During his stay here the intelligent and genial nature of the Rabbi gained for him many warm friends.

The Misses Mena G. and Stephanie M. Clark, of Boston, daughters of the Rev. Jos. Clark, the well-known Kongo missionary, are taking a few weeks' rest and treatment in the institution.

Bishop Collins Denny and wife, of Nashville, Tenn., are guests at the Sanitarium. Bishop Denny addressed a large company in the Sanitarium parlor on Sunday evening. These friends were with us two years ago.

Prof. W. E. Cann, who has been engaged for four weeks as teacher in the Physical Culture School, has returned to his home in Elizabeth, N. J.; and Prof. Roy Seymour, of Cedar Falls, Ia., connected with the State Teachers' College of that place as physical director, is here giving instruction for the rest of the term.

Professor Hebard, physical director of the Providence, R. I., Y. M. C. A., gave several lectures and illustrations to the School of Physical Culture on artistic calisthenic exercise. Professor Hebard has more than a national reputation, and his instruction was much appreciated by all who attended.

We expect to give next week the first half of Doctor Kellogg's lecture at the New York Chautauqua on the subject of "The New Hygiene." This lecture is full of matter of the intensest interest, and will claim the earnest attention of all our readers, and none will be surprised at the statement that its delivery made a deep impression upon the Chautauqua audience.

Miss Ada Estelle Paddock, for four years Y. W. C. A. secretary of Shanghai, China, has been spending several days at the Sanitarium. She attended the great World's Missionary Conference at Edinburgh, and during her stay here gave to the Sanitarium fam-

ily a most interesting account of that great meeting. Miss Paddock also addressed the Christian Endeavor Society at its weekly meeting on Friday evening.

On the evening of July 28 Dr. A. J. Read delivered a lecture on the front lawn, assisted by Dr. Arthur Smeek, on "What to do in Emergencies." Demonstrations were given by the Physical Culture School students. The lecture was a very pronounced success and attracted one of the largest audiences that has been gathered at the Sanitarium this year.

We are glad to have with us again Mrs. Bertha Gibson Ross, who for years was in charge of the ladies' bath-rooms, and a few years ago went to New Zealand as the wife of Dr. A. H. Ross. Doctor and Mrs. Ross and their little son are spending the summer at the Sanitarium. Their practice in New Zealand brought them in contact with the Maoris, the aboriginal inhabitants of that colony and one of the most interesting of all the known aboriginal peoples.

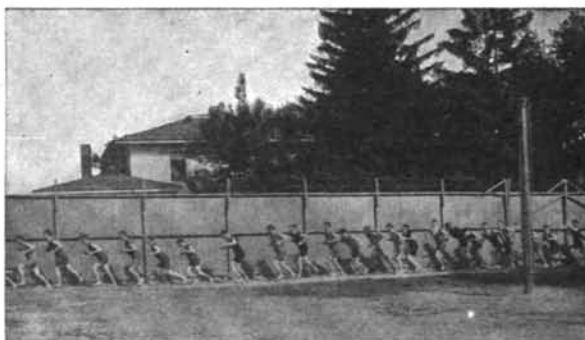
Dr. H. S. Curtis, of Worcester, Mass., is stopping at the Sanitarium this week. Doctor Curtis is closely identified with the movement for the betterment of the conditions of children, having been for some years secretary of the National Playground Association, and located at Washington. He is now identified with the Clarke University. While here at the Sanitarium, Doctor Curtis delivered a series of five lectures, the first one a stereopticon lecture, on Monday evening, entitled "The Revival of Play as a World-wide Movement." The other lectures were delivered on the forenoons and afternoons of Tuesday and Wednesday. They were of much interest and in behalf of a movement which is certainly deserving of wide approval.

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THE BATTLE CREEK IDEA



Vol. III No. 36

BATTLE CREEK, MICH., AUGUST 12, 1910

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Question Box

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Q. Should vegetables and fruits be mixed at one meal?

PURVEYING FOR THE SANITARIUM

What the Battle Creek Sanitarium Provides for Its Fifteen Hundred Eaters

THE matter of providing for the Sanitarium tables is one that requires the labor and attention of quite a force of men and teams.



AT THE STORE-ROOM ENTRANCE

You can divide silver as often as you wish, but you still have silver; you can not make anything else out of it by dividing it. Gold is a chemical element. You can not make anything else out of it but gold. Water is a chemical compound, and the formula for water is two parts of hydrogen and one part of oxygen. Separate the elements, and it is no longer water. A food element is any sub-

(Continued on page two)

A. If you chew them well; they must be very thoroughly chewed.

Q. How can one detect too much hydrochloric acid in the stomach?

A. By taking a test meal. That is the only sure way. Though if you have a burning in your stomach, and a raising of something acid in the throat two or three hours

(Continued on page three)

About fifteen hundred people are fed daily, and the food must be gathered from sources that are wide apart. No flesh foods of any description enter into the calculation; and tea and coffee, condiments and hot sauces, pickles and all other irritants, are also eschewed and do not figure at all in the expense bills of the institution.

While a very great saving of cash and of stomach troubles is thus effected, the expenses

in other directions are unusually large; for the Sanitarium dietary rules do not consist of "Thou shalt nots." Abundant provision is made to more than supply the places of those edibles that are eliminated, so that there is no occasion to fear any trouble from an impoverished diet.

The work of selecting and procuring the necessary food is directly under the supervision of the superintendent, ably assisted by the stewards, who do the purchasing, and for the purpose of securing the best things to be had, often visit the great markets and various parts of the country. The task has been made rather more difficult than usual this season on account of the drouth conditions that prevail over much of the country, rendering the supply of local fruits and vegetables difficult to obtain. But, as is always the case, there is always food somewhere, and so it only means going farther for it.

sugar there was consumed 4,457 pounds, lemons 95 cases, oranges 177 cases, peaches 147 cases, berries 185 cases, and potatoes 169 barrels. These are only a part of the prominent items of the commissary department. The figures for August and September will be considerably larger than these in each particular. The work of keeping up a continual supply of fresh fruits and vegetables and other foods is so thoroughly systematized that it moves along smoothly and perpetually. The figures given above include only the food sent to the tables in the main dining room and East Hall, and do not include the supplies furnished to the canneries and bakeries. Large quantities of canned fruits and vegetables are consumed during the year when the market is not so well supplied with that which is fresh. Nearly all these goods are put up under the Sanitarium supervision in its own factories.

Fruit juices are furnished to the guests in

FOOD ELEMENTS ARE ONLY SIX

(Continued from page one)

stance that is a food, which can not be divided and made more simple and still be a food. That is, a food element is the simplest substance that we can have in the shape of food. There are six food elements, and that is all. We may dine with a king, or we may eat our meal with the laboring man by the wayside, and if we have a sufficient amount of these six food elements and have them in the right proportion, we have all that we can get in any place; so far as our body is concerned, there is nothing more that we need. Of course these six elements may be mixed and combined in different ways, so that they will taste and appear differently, but, so far as their food value is concerned, if you have these six food elements, and have them in the right proportion, you have everything that you can get and everything that you need.

Carbohydrates

First of all are the carbohydrates. "Carbohydrate" is a chemical term which means hydrate of carbon, and a hydrate is any substance that contains hydrogen and oxygen in the same proportions that they are present in water. So we might call this hydrate of carbon. You will find this term on your menu card when you are figuring up your calories. These carbohydrates contain carbon, hydrogen, and oxygen, and always in a definite proportion. In the starches, for instance, they are present in the proportion of six parts of carbon, ten parts of hydrogen, and five parts of oxygen.

There are different classes of carbohydrates. First, we have starches; second, sugars; third, we have what we call cellulose. Carbohydrates are very plentiful in the starchy grains and nearly all vegetable products—in the corn, in the wheat and, of course, in the food preparations made from these products. Carbohydrates are combined with other food elements. For instance, in wheat we have carbohydrates in the form of starch, and we have gluten that is not a carbohydrate, and a certain amount of salts. Several food elements are found together in a kernel of wheat; and when we eat the bread we eat them all.

Carbohydrates are also often very abundant in the vegetables, especially potatoes; and a small percentage is present in fruit. Fruits contain sugar, but they also have some starch. There is very little of starch or carbohydrates, however, found in animal food. We have a good deal of nitrogen in meat, but a very small amount of carbohydrates.

Starch is made up of granules or little particles, each enclosed in a little box made of cellulose, which is another form of the carbohydrates. And the purpose of cooking is to break that box to let the starch out. Raw starch is indigestible. Cooking bursts the granules, and then the starch can be appropriated.

The Function of Carbohydrates

in the body is to furnish energy to keep us warm, energy for all our activities. And this is rightly considered the most important of all the functions of nutrition. Protein elements are used for repairing and building



COOKING FOR THE SANITARIUM HELPERS

The Engraving on the First Page

shows the store-room door, where much of the local supplies of produce and fruit are delivered. The view represents a load of grape juice from the cold storage, and a load of canteloupes from the country. Michigan is noted for the variety of its products. Everything grown in the temperate zone flourishes in this State, including all manner of fruits, vegetables and grains.

Some idea of the task of supplying food for such a large family will be gained from a few figures compiled from the reports of last July and furnished by the steward's office. The dairy supplies as reported by the creamery department for July are as follows:

Butter manufactured....	5,760 pounds.
Cream	8,393 "
Milk	12,451 "
Kumyss	5,916 "
Cottage and Yogurt cheese	635 "

During the same month, 48,000 eggs were consumed, and 10,500 loaves of bread were supplied the tables, in addition to 2,782 pounds of breakfast toast. This does not include the unleavened fresh breads that are always supplied at the breakfast tables. Of

unlimited abundance, not less than 40,000 gallons of fresh apple juice having been sterilized and hermetically sealed in one autumn.

Cooking Department

The work of preparing this food for the tables is accomplished under the supervision of the dietitian's department, where the menus are made out a day or two in advance. The fruits and vegetables are prepared in large kitchens arranged for that purpose in the basement, the cooking all being done in the kitchen located on the sixth floor. This is an ideal kitchen, light and airy, well supplied with every facility. Cooking is done by gas and steam, the cooks being thoroughly skilled in hygienic cookery and in entire harmony with the objects and principles of the institution. Of course, the greatest pains are required in the selection and preparation of the food for a large company of invalids, whose health and welfare very largely depend upon the kind and quality of their food.

The dining-room service is maintained at a high grade of efficiency and excellence. The tables present a very attractive and appetizing appearance, and as the food is set before the guests it is attractive and gratifying in every respect.

tissues, which is certainly a very essential work, and none the less necessary than the supply of energy, but in the matter of quantity required, the material for energy is far greater than that required for building, especially so in the case of those who have reached their growth. Energy is needed for two purposes—for bodily warmth and bodily activities. The heat of the body is, say, 98° F., and this must be maintained day and night, summer and winter, and the variation of a few degrees either way is fatal. No small amount of fuel is required for this purpose, as will be very apparent. Then, too, every activity, mental or muscular, voluntary or involuntary, vital or perfunctory, calls for energy. Steam is the energy of a locomotive, and every turn of the crank calls for energy, so the supply of coal must be abundant and constant. Brass and iron for repairs are also necessary, but the amount of repair material is very small as compared with that needed for energy. And in this fact we have an illustration of the comparative demand for carbohydrate food elements, and for protein elements. It is apparent that a low-protein dietary is the most practical for the use of the human body.

Next We Consider Sugar.

Sugar has the same chemical elements as starch,—carbon, hydrogen, and oxygen,—but they are put in differently, and different sugars have different chemical proportions, but in formula they all resemble starch. The principal sugars that we use for food are cane sugar, found in the cane, in the beet, and in other plants; grape sugar, found in the grape; and levulose, another kind of sugar, found principally in fruits; and the sugar of milk, found in milk. They are all produced in plants, except milk sugar. Cane sugar is perhaps the most abundant. Cane sugar is a food, but it is not always the best kind of food, particularly for people who have certain troubles of the stomach or of the liver. Cane sugar is somewhat irritating, so when we have a patient who has a high degree of acidity, we advise him not to use cane sugar; or, in fact, sweets of any kind, unless in great moderation, because sweets of all kinds, even the very best kind, if they are taken excessively, will increase the secretion of hydrochloric acid in the stomach. So a man who has an excessive amount of acid in his stomach should not eat cane sugar, or at most should eat it very moderately.

Cane sugar sometimes irritates the stomach to the point of increasing the secretion of mucus, and if taken excessively it will cause catarrh of the stomach. Here at the Sanitarium we have a form of sweet which we call maltose, or malt honey. Maltose, or maltose, is the same kind of sugar that is produced in the body by the digestion of starch. Many people can not digest starch, except with difficulty. We manufacture maltose outside of the body, for the benefit of the individual who can not digest starch readily. Chew a piece of bread for a few moments, mix the saliva with the bread, and the ptyalin, or the active principle in the saliva, converts the starch in to sugar. And that sugar is maltose, or maltose. Maltose is simply a commercial name for maltose. In other words, maltose is digested starch. And

so we have another kind of sugar to add to our foods.

Cane Sugar Has to Be Inverted, or changed into dextrose and levulose before it is absorbed. Maltose is ready for absorption, and therefore it is quite an important food, particularly for those who have difficulty in digesting starch. In the case of an individual who has hyperacidity, we advise him to mix the maltose with butter. The butter tends to overcome the irritating action of the malt honey. Of course malt honey is not nearly so irritating as the cane sugar; in fact, it is the mildest, the least harmful, in the case of a high degree of acidity.

The uses of sugars in the body are the same as those of the starches. Taken as a class, they are easily digestible. Their function in the body is to furnish energy in the form of heat and muscular or mental activity.

You can not build good muscle or brains or glands with starch or sugar. You can not

the human apparatus digests very little of cellulose. It has a value in a mechanical way, in that it increases the bulk of the food, stimulates peristalsis of the stomach and bowels, but outside of these things its food value is very little.

(To be continued)

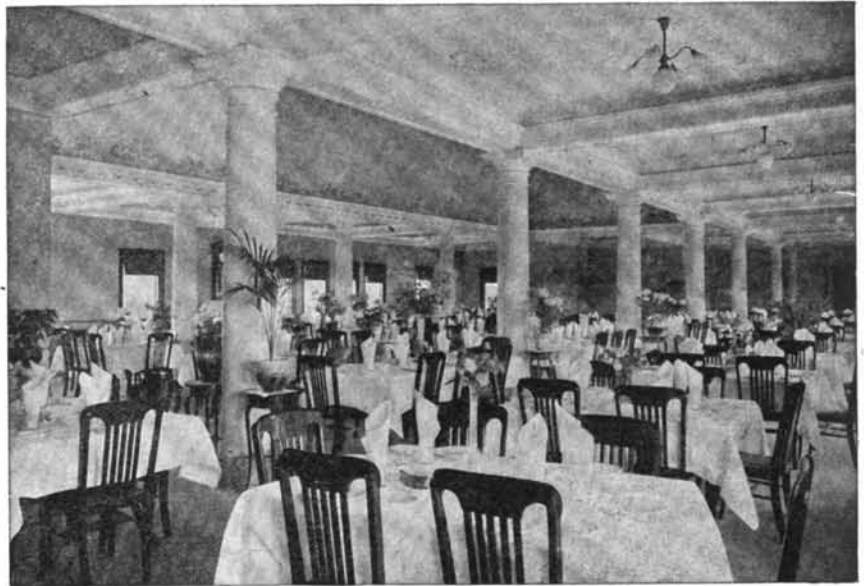
QUESTION BOX

(Continued from page one)

after a meal, that is pretty good evidence that you have hyperhydrochloria.

Q. When one has not been a sufferer from dyspepsia before coming here, and does suffer from it now, after a three weeks' stay at the Sanitarium, what is the cause?

A. It must be his sensibilities are waking up. Some years ago I ate at a boarding house, and got some pepper into my stomach before I was aware of it, and I had a very



THE SANITARIUM TABLES

make brains out of sugar. These elements are not tissue builders. They may enter into the brain tissues, or muscle tissues, or gland tissues, but something else must go along with them. Feed a dog on white bread, which is mostly starch, and in three weeks he is dead. The starches and the sugars furnish energy, they keep us warm, they give us energy for doing our work. The protein element of the food, as the gluten in the wheat and the albumen in the eggs, is that which builds the muscle. We do not use protein foods to get energy; we eat them to build up tissue. The farmer in feeding his stock, when his stock is young and growing, gives the young stock a large amount of protein foods. After the stock has grown and he wishes to fatten his stock, he feeds them starch in the form of corn. So if you want to build up brain and muscle, eat protein food; and if you want to get energy, you must eat starch and sugar.

The food value of cellulose is very little for the human subject. It is represented by the bran of wheat and the fine fibers passing through the vegetables and in the fruits. Herbivorous animals can digest cellulose, but

severe burning there. I mentioned it to somebody, who said, "I would not have a stomach that wouldn't stand a little pepper." It is a great deal better to have a tender physical conscience than it is to have none. It is exactly as it is with the moral conscience. The moral conscience may get seared in the same way. When a man first smokes tobacco it makes him sick, to show him it is bad. But after smoking a number of times he does not feel sick any more, and he goes on unconscious of the harm that comes to him from the use of tobacco. So it is with mustard, pepper, peppercorn, and such things. The nerves become benumbed and cease to resist.

Some time ago I saw a good illustration. A lady came to me with scars all along her back, and I said, "You have had your spine blistered, haven't you?" "I should think I had," she said. "The doctor put on first mustard plasters until they wouldn't draw any more; then he put on Spanish fly blisters until they wouldn't draw any more; then he put on croton oil liniment until that

(Continued on page four)

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THE SUGAR HABIT

THE large consumption of cane sugar is given by Dr. J. H. Kellogg in his lecture before the Chautauqua Lake Assembly as one of the prime causes of race degeneracy. Few thoughtful people, if any, will take issue with that statement. The speaker gave seventy-five pounds as the amount consumed annually in this country per capita. An article recently published in Holland and quoted by the *Review of Reviews*, gives the figures slightly higher. Great Britain, according to that article, leads the world by consuming 77.66 pounds for each person in one year, and the United States comes in a close second at 76.1 pounds. In 1875 the amount in Great Britain was 62.59, and in the United States it was 42.33 pounds. In all of the European countries where the amount used per capita is smaller than in the countries mentioned, the increase has been in much greater proportion. In many of them the amount used has doubled in the period mentioned, and in some cases more than trebled. In Sweden and Norway the amount used per person in 1875 was 7.48 pounds. In 1906 the amount was 46.86, over six times as great. In Switzerland the amount more than trebled. In our own country it will be observed that the amount was nearly doubled in thirty years.

The use of cane sugar as an addition to food is very largely artificial and luxurious. It is not a necessity. Sugar, as shown by Doctor Riley, is a necessity, or at least an important element of nutrition as a heat and energy producer, but this statement does not include cane sugar, which must be inverted, or converted into dextrose and levulose before it can be assimilated. The body has the necessary means for manufacturing its own sugar from starch in a form that is at once assimilable and nutritious. The mouth is a sugar mill, where the saliva has the effect of converting starches into sugar, and this work goes on for some time in the stomach until the gastric juice has neutralized the alkaline saliva, which it does not do at once. In the liver the sugar is stored up and is returned

as needed to the blood, so that the body is not at all dependent upon the supply of cane sugar taken with the food for the supply of its immediate necessities.

But as an irritant cane sugar excites the mucous lining of the stomach until the congestion becomes permanent, and chronic catarrh of the stomach results. Catarrh is a sign of degeneracy, and we are a race of catarrh victims. Many of the complaints of digestion and nutrition are undoubtedly attributable to the immoderate use of sugar. Sugar is used unreasonably, inconsiderately, and recklessly; and the only possible excuse for the practice is that it caters to a perverted and abnormal taste. The passion for sweets is a pitfall that lies in the path of all persons, and the only thing that prevents many more from falling victims to it is their inability to pay for the candies and other confections that tempt them. Very often men are seen at the table covering their oatmeal porridge with cream, and adding two or three or more spoonfuls of sugar. An intemperate amount of sugar is placed in their coffee, and they wonder where their dyspepsia, and heartburn, and sour stomach, and general distress come from.

The numerous candy shops that do a thriving business in every community testify to the widespread prevalence of the cane sugar habit. The appetite for sweets is wholly natural, but it should be gratified by natural rather than artificial sweets. We are already reaping the consequences of such living, and the worst is yet to come unless we learn to deny our appetites, and conscientiously and intelligently to dictate to our tastes, and not allow them to master us.

THE SANITARIUM LIBRARY

MISS LILIAN BABCOCK, of Milton, Wisconsin, has been engaged as a librarian for the Sanitarium library, where she will be associated with Mrs. Eva Bell Giles; and for Doctor Kellogg's private library, of which she will have sole charge. Miss Babcock expects to enter upon her duties about the first of September. She is a lady of superior literary culture, and has had several years' experience in library work and in teaching. Under the competent management of Mrs. Giles and Miss Babcock, the library is well provided for. This feature of our institution is growing in efficiency and practical utility. New books are constantly being added, the character of the reading matter is carefully guarded, and pains are taken to advise young people in the selection of books and in courses of reading. The list of current literature is very complete, embracing all the leading magazines and weeklies. The branch reading-room in the main building is also doing good work under the charge of Miss Adella Cross.

THE SANITARIUM CHRISTIAN ENDEAVOR SOCIETY

THE Sanitarium Christian Endeavor Society held its consecration meeting last Friday evening in the chapel. After a short song service, led by Mr. C. G. Wencke, the meeting was opened by Mr. C. Stauffacher, the topic being "Christ Our Friend." The leader brought out some very impressive thoughts on this theme. All responded to the roll call. Miss Mabel Cranfill sang "Hold Thou My Hand." The attendance was unusually large, many of the patients being present.

The subject for this week is "God's Plan for Us," led by Miss Elizabeth Neal. Come and bring some one with you.

NOTORIETY is the ambition of many people, but surely nobody envies Mrs. Nicholas Longworth the free advertising she is getting as an exponent of the art of cigarette smoking for women. It would certainly be the greatest of pities to have this relic of Eastern harem life foisted upon our boasted civilization. It is quite difficult enough to keep the vicious practice somewhere near in bounds among the boys, to whose health and morals it is a deadly enemy; but if it once comes to be recognized as the proper thing for smart women to do, what can we say to the boys and men? We never saw the lady in question smoke a cigarette, and do not intimate that she does such a thing, and sincerely hope that she is able to offer an honest and indignant denial that so attractive and influential a lady would lend her influence to so vile a habit.

QUESTION BOX

(Continued from page three)

wouldn't draw any more; then he used pure croton oil, and after a while that didn't have any effect, so he has been burning me with a hot iron." Just think of that! It is exactly so with the stomach, and these condiments are absorbed into the body, travel all through it, and they affect the tender, delicate nerve filaments with which they come in contact. It is the same way with these stomachs that have been accustomed for a long time to misuse; when we remove all stimulants, condiments, and irritating things, the stomach begins to come to itself, and we find there is something wrong, there is some irritation. Whatever little disturbance there may be can be easily corrected. There is no reason why you should continue to suffer for any length of time.

Q. In former years a great deal of stress was laid on food combinations. We do not hear so much about it nowadays. Why is this?

A. We do not say much about it now, because we say "chew"; and if you chew and get the food into a liquid state before you swallow it, then all foods will combine well. It is not so much in combination, after all, as it is in the chewing. I am sure that is right.

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L. J. BUSH, Passr. Agt.

Q. I heard you say a small amount of ice cream will chill the stomach and interfere with the digestion.

A. If you swallow it whole it will; but if you fletcherize it and swallow it in a warm state, at the temperature of the body, it does not produce that effect. Mastication is the whole thing, after all. Mr. Fletcher did not discover mastication; he has introduced a sort of renaissance in mastication.

Q. Is it good practice for the physician to announce to the patient an unfavorable prognosis, telling him he can only live a year, etc.?

A. It is not well to rob the sick man of hope. It is usually preposterous for a physician to do such a thing, because no one can know certainly the time a person is going to live. I have in a few cases warned a patient what to expect if he did not reform. In one case a man had cancer of the stomach, and I removed his stomach, and then said to him, "If you go back to your old habits, your tobacco, whiskey, beefsteak, pork-and-beans, and such things, you will not live more than two or three years at the most. If you live as you ought to live, you may have fifteen or twenty years of life yet." I got news to-day that that man died in just three years. He gained strength and vigor, and weighed twice as much as he did when we first saw him, when he was a mere skeleton. He wrote me a year or two after the operation that he felt so well he could smoke all the cigars he wanted to, drink all the whiskey he wanted to, and eat hog and hominy, and anything he wanted to eat, and he was just feeling fine.

I wrote him most beseechingly to reform his diet. I said, "If you do not care anything about yourself, have some consideration for me. You will spoil my reputation if you die; you will hurt my record; and I want you to take care of yourself." But nothing awakened his interest in caring for himself; he ate everything and drank everything, and just as I was starting for Porto Rico last winter I got a telegram, "Come and operate on me." I did not go. I knew it was too late; and in three weeks he was dead, and simply because he would not practice the little self-denial necessary to resist those old appetites. That man had squandered his opportunities when he had a second chance. That may be true of you. You come here and learn the right way, which is simply the natural way, and the natural way must be the right way. There is power in it, because when we get into line with the creative Power that is working in us, that made us, then there are tremendous forces helping and working within us. And I entreat you, as you value life and health, to abide in the good ways you have found.

Q. Why are stewed tomatoes injurious to a hyperhydrochloria sufferer?

The best rate of the season is the one to Muskoka Lakes, Temagami, and New Liskeard, Ont., via the Grand Trunk Railway System, Thursday, August 25th. A splendid place to spend your vacation. Ask for particulars as well as descriptive booklet of this lake region.

L. J. BUSH, Pass'r Agt.

A. Because of the citric acid in the tomato,—the same acid that is in the lemon,—and when a person has a sour and sensitive stomach, these organic acids are sometimes very irritating.

Q. Is the use of milk at meal times good for one who has bad digestion?

A. If you have hypopertesia, you would better not take milk. If you have hyperpertsia, it is good for you, provided you take enough of it, but it is not a good plan to take just a little milk, because it will form large, hard, tough curds; but you should take enough of it so it will make soft curds. But it is better still to take cream, because it prevents the formation of acid.

Q. Are biliousness and autointoxication the same thing?

A. They are exactly the same thing. An attack of acute biliousness is simply acute autointoxication. It means simply putrefaction of substances in the colon in such quantities that the liver and kidneys are not able to deal with them.

Q. What are some of the causes of periodic sick headache?

A. Sick headaches are simply crises; they are attacks of autointoxication. It is toxins formed within the body which keep on accumulating to such a point that Nature just lays aside everything else and goes in for a house-cleaning. There is vomiting and often purging until the body is cleared of the poisons and then the headache is relieved.

Q. Why is chronic rheumatism worse in cloudy or stormy weather?

A. Because in damp weather the activity of the skin is checked. Rheumatism is a toxic disease due to poisons which accumulate in the blood. These poisons are being pushed off all the time through the skin, and when the skin is active the joints are relieved, the congestion in them being lessened. When a cold day comes suddenly, or a cold day following hot weather, the patient always suffers more pain in the joints, because the blood is driven out of the skin and the excretion of the skin is stopped.

Q. Give a recipe for the making of Yogurt buttermilk.

A. Yogurt buttermilk is prepared from an oriental ferment as follows: Milk is boiled for five minutes, then allowed to cool until the tip of the finger can be held in it for half a minute. Two Yogurt capsules are then added and thoroughly mixed with the milk. The milk is then covered with a cloth and thickly wrapped with blankets to keep it warm until the milk thickens. It is then put in a cold place. The best plan is to use skimmed milk and add cream when using.

ARRIVALS

The following names appear on the Battle Creek Sanitarium register for the week ending August 7: C. W. Aldeman, O.; Mr. and Mrs. J. M. Black and son, Syracuse; Wm. Burtless, Mich.; A. L. Brown, Chicago; Mrs.

E. A. White and Mrs. Mary Williams, Mich.; Henry McCall and Master J. L. McCall, New Orleans; B. P. Harrison and son, Okla.; Miss Charlotte Beattie, La.; W. S. Tuele, Toledo; Benj. Martin, wife and son, Okla.; Frank Scott and F. J. Scott, M. D., Ill.; B. I. Bell, Atlanta; Mr. and Mrs. Chas. Goldsmith, Detroit; Mrs. H. O. Cortwright and Mrs. C. A. Hofmeister, Mich.; G. M. Bryant, O.; Mr. and Mrs. Sterling Meyer and children, Tex.; A. R. Lloyd, Ark.; F. Schlick, New Orleans; Mrs. Esther P. Doom and Mrs. Annie Doom-Pickrell, Tex.; F. H. Daley, Kalamazoo; Miss Sue Malone, Ala.; Mrs. W. B. Latta, New York; Leslie Z. Lampton, Miss.; J. Jackson and wife, Ala.; Inez Turner, Mich.; A. Pigneguy, Cincinnati; Jane Staley, Ind.; Mrs. W. D. Shimp, W. D. Shimp and Margaret, Ind.; D. E. Wethering-

ton, Ala.; Mr. and Mrs. Harry N. Hess, W. Va.; Mrs. Jennie Alexander and Florence, Detroit; Mrs. S. M. Cooper and daughters, Cincinnati; Mr. and Mrs. P. E. Hoss, Ind.; Mrs. J. B. Cranfill, Dallas; Mrs. M. E. Wagner, Miss.; A. G. Wagner, Tenn.; Mrs. T. A. Jennings and children, Fla.; H. B. Winter-smith, Ky.; Chas. Youngheim, Kans.; Mrs. E. H. Crane and Lucille, W. Va.; E. B. Williams, Ky.; Henry C. Davis and wife, Ind.; Mr. and Mrs. R. C. Rieker, China; Mrs. B. T. Johnston, Ill.; Mrs. J. H. O'Hara, Chicago; S. R. Wolf and Joseph, Louisville; Laura M. Chamberlin, O.; May Erline Jones, Ia.; Mrs. Edwin L. Albert and son, Cincinnati; Harry Blotchy, Ia.; Mrs. B. J. Prince, Washington, D. C.; S. C. Matthews, M. D., New York City; Mrs. E. Fangsburg, Mich.; Christian Sommerer, Ind.; Mrs.

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THE MEDICAL MISSIONARY

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Contributions direct from all parts of the field represent the work of medical missions in various parts of the world as carried on by all denominations.

A Medical Department is conducted by J. H. Kellogg, M. D., Superintendent of the Battle Creek Sanitarium.

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AUGUST 14, 1910

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News and Personals

Mr. and Mrs. A. H. Nichols, of London, England, have registered with us for a course of treatment.

L. R. Willard, of Marshalltown, Iowa, accompanied by his wife and daughters Mary and Helen, is stopping at the Sanitarium for a few weeks.

Mrs. J. B. Cranfill, of Dallas, Texas, has joined her daughter, Miss Mabel Cranfill, who is stopping at the Sanitarium for the summer months.

Mrs. Henry E. Harmon, of Atlanta, Ga., a frequent visitor at the Sanitarium, has again registered with us, bringing with her J. R. Mobeley and family, also of Atlanta.

Among the new arrivals from the South, we note the following: Mrs. Louis Woods and sons Walter and Robert, and Mrs. J. M. Richardson and daughter, of Memphis, Tenn.

Miss Janet McNaughton, of Oberlin, Ohio, joined her parents, Rev. J. P. and Mrs. Mc-

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This course gives necessary instruction and training to prepare those who take it to fill positions as dietitians, lecturers, and demonstrators.

Details of courses are given *in extenso* in the Annual Announcement, which will be sent on application.

Naughton, at the Sanitarium last week, where she will spend the next few weeks.

Mrs. S. N. Cooper, of Cincinnati, has returned to the Sanitarium for further rest and treatment. Mrs. Cooper was accompanied by her two daughters, the Misses Virginia and Mildred Cooper.

Mr. and Mrs. Harvey W. Bremer and daughter, Miss Frederica, of Overbrook, Pa., are among the guests who have returned to the Sanitarium for the month of August.

Bishop Collins Denny, of Nashville, delivered two very effective discourses to the Sanitarium family, one on Sabbath morning in the chapel, and one on Sunday evening in the main parlor. Both services were well attended.

Mr. Howard F. Wilson spent a few days last week in and around the institution, visiting old friends and acquaintances. Mr. Wilson graduated from our Nurses' Training School several years ago, and now has charge of treatment rooms at the State Farm Institution, located near Bridgewater, Mass.

Among the physicians now stopping at the Sanitarium, we note the following, who registered with us last week: Dr. E. Bollinger, of Chicago; F. J. Scott, M. D., of Rock Falls, Ill.; Dr. C. W. O'Donnell, of Andover, N. Y.; F. F. Abbott, M. D., St. Helena, Calif.; S. C. Matthews, M. D., of New York City; and Dr. M. F. Baldwin and wife, of Marion, Ind.

The patronage of the Sanitarium is, as usual at this season, very large, and doctors, nurses, and all members of the household and commissary staff are very busy caring for the large number who are with us. The greatest satisfaction is enjoyed by all who bear their parts willingly because of the great amount of good that is being accomplished. Scores and hundreds of people are being relieved and strengthened, and fitted up for more efficient service.

A delightful evening was spent by the Sanitarium helpers on West Hall lawn on the evening of the 3d inst. A bright array of lights, the soft lawn and spreading trees, combined to make a beautiful scene, which was enlivened by two or three hundred young people, and some older ones, all enjoying a social time. The orchestra was present and discoursed sweet music, and Miss Mary Ross sang two delightful songs. Mr. Edwards, the faithful steward, with a staff of assistants, dispensed the luscious watermelon to the thirsty crowd until they were too full for utterance.

The Sanitarium orchestra, under the direction of Mr. Drever, has received some accessions recently which have added much to its efficiency. Mr. Arthur Bryce, whose work with the violin places him in the first rank of performers, and Mr. Chas. E. Roat, the equally celebrated flutist, have been engaged; these, with Mr. Drever on the trombone, Mr. Peters on the cornet, Mr. Robert More on the bass, and Mrs. Drever at the piano, consti-

tute a company of artists of which the Sanitarium may feel proud, and who are able to satisfy the most fastidious with choicest music. The orchestra plays at least three evenings a week.

The Missionary Rally was held Sunday, August 7, in the Sanitarium parlor, Mrs. J. P. McNaughton being the speaker for the afternoon. Quite a large number of missionaries and guests were in attendance, who listened with much interest to Mrs. McNaughton's address on "Harem Life." In her remarks the speaker told something of the life of the Turkish women, their schools and their desire for a higher education. In closing, Mrs. McNaughton spoke of the great need among the Turkish women for medical workers and nurses. This is practically a new field and one that is very important for the women of Turkey.

On Sabbath afternoon, on the lawn, Rev. J. P. McNaughton spoke to a large and interested audience on "The Kaaba." The term refers to a cubical building of small proportions and modest pretensions standing in the midst of the enclosure of the great and celebrated mosque at Mecca, and forming the central object of Mohammedan worship and reverence. It is reputed to have been built in exact likeness to the one constructed by Adam in obedience to the divine command, and the exact counterpart of the Kaaba of heaven, and is located directly beneath the one above. The present building is claimed to have been built by Abraham and Ishmael in connection with a tribe of Amalekites. The building contains a stone, once white as snow, which, it is said, came down from heaven. The constant kissing of this stone by pilgrims for many ages, who thus impart to it their sins, has had the effect to turn the stone a deep black. The address was replete with interesting and instructive facts, current and historical.

Opportunity

If you are earning money now but not benefiting humanity while earning it, are you at your best? Gold is not the gauge of success. *Help* is the standard above the brute line. To enter the ring for gold alone is to mistreat humanity, whether a prizefight ring or some other.

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If you have *opportunity* to place his lectures in book form in the homes of the people, ever at hand for counsel and guidance—a present help to health-keeping or recovery, and make money while doing it, are you doing your best while at anything less important?

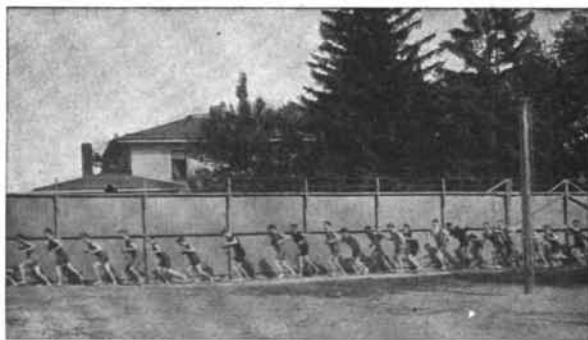
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A Two-Years Course. Each year comprises thirty-five weeks and an eight-weeks Summer Course.

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THE BATTLE CREEK IDEA

Vol. III No. 37

BATTLE CREEK, MICH., AUGUST 19, 1910

Price 2 Cents

Food Elements Are Only Six

Dr. W. H. Riley Lectures on Foods, and
Tells His Audience of the Six Food
Elements and Their Functions

(Concluded)

Acids as a Food Element

ACIDS have the same chemical elements in

INTERVIEW WITH AN AFRICAN HUNTER

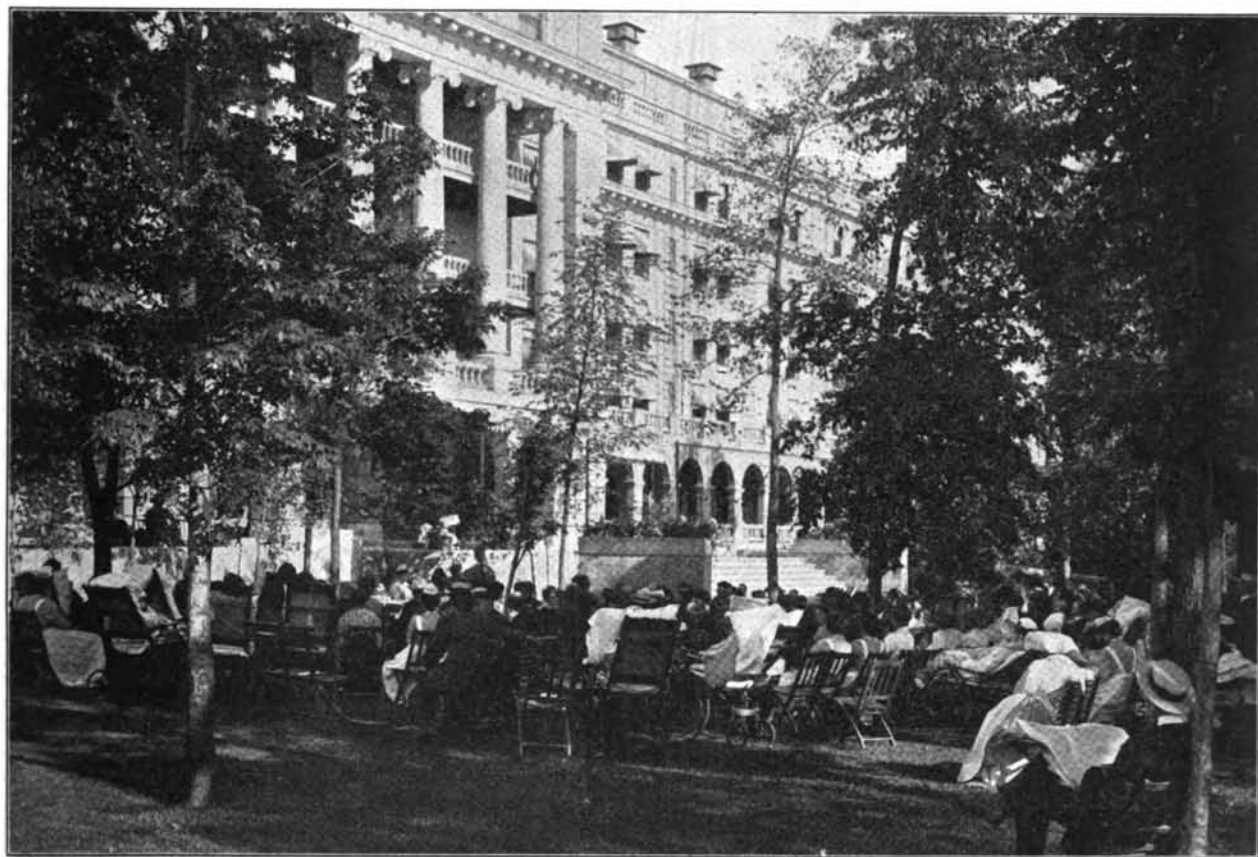
Mr. A. R. Dugmore, Who Hunted in the
Wilds of East Africa with a
Photographic Camera

MR. A. R. DUGMORE, of England, the
famous camera hunter of Eastern Africa,
was a recent visitor at the Sanitarium. He

Facts Disclosed Regarding Milk

From a Lecture to Patients and Guests
in the Sanitarium Parlor, by
Dr. J. H. Kellogg

MILK is not a drink at any time or under
any circumstances. Milk is a food, and
should always be masticated the same as any



A HEALTH LECTURE BY DOCTOR GEISEL ON THE SANITARIUM LAWN

them as starch and sugar—carbon, hydrogen, and oxygen. The acids are found in the fruits almost entirely. We do not find acids in the cereals or vegetables. They are represented by tartaric acid in the grape; by citric acid in the strawberry, the orange, and the lemon; by malic acid in the apple. These,

(Continued on page three)

is a most interesting character, a lover of the simple and natural life, a man of very modest pretensions and claims, a lover of animals, whose acquaintance he so earnestly sought in the same wilds in which Mr. Roosevelt hunted with gun and bullet.

Mr. Dugmore was accompanied on his fif-

(Continued on page five)

other article of food. Serious things happen when one forgets to chew the milk he swallows. A glass of milk swallowed whole is liable to remain whole and form one large, hard, tough curd.

When I was assisting Dr. Lawson Tait, the great English surgeon, with whom I spent a few months some years ago, he told me of a

case to which he had been called that was very interesting. The patient was a boy who was convalescing from typhoid fever and was acquiring a great appetite. One day he drank about a quart of milk, and not long afterward the doctor was called to examine this boy for what seemed to be an obstruction of the bowels. He found a great lump on the right side, and on opening up the abdomen he discovered it was simply a

Great Mass of Curds

that had accumulated at that point, effectually blocking up the bowels. At first he thought it would be necessary to open the intestine; but on second thought he proceeded to break up the lump with his hands, and push it along little by little, until he finally succeeded in working it through into the bowel, and thus saved the boy's life.

Another case that came under my own observation illustrates very well this same

mixed with milk to form large, hard and solid curds. The cheese-maker goes through and cuts it into slices, then cuts it through the other way, making it up into squares. The curd then keeps on contracting and leaves crevices all around through which the whey is drained off. Now we make cheese in the stomach, and the rennet of the stomach acts upon the milk and converts the casein into hard, tough curds. This is not true, however, of the infant that is fed on its own natural food. The curds formed from the mother's milk are soft, fine and flocculent, and so are easily digested. Cow's milk contains a great deal more casein and acid than the infant's normal diet, and forms curds of an entirely different kind.

Some of you have been in a cheese factory and tasted the curds, and you know how tough they are. New cheese that has not matured or ripened is very leathery. The process of cheese-making is one of rotting. The

cayed from the action of the germs or molds in it.

Yogurt Cheese

That is the reason we do not have dairy cheese in the Sanitarium. To take its place we have yogurt cheese. Since yogurt contains friendly germs, we make cheese that is formed by them instead of from poisonous ones. We sterilize the milk, and thus kill all the barnyard germs; the friendly germs are then put in and allowed to act along with the rennet.

In the Process of Chewing,

the milk enters the stomach mixed with saliva, which, being alkaline, modifies the acidity of the gastric juice so that the curds that are formed are small and tender. That is why the experienced nurse mixes a little barley or rice water with the milk for the baby, to prevent stomachache. By the mixture of cereal water with cow's milk, the curds formed are soft and break up very easily. Thus it is very important to fletcherize milk well, because it can not pass out through the pylorus in solid form and will either have to come up bodily or be dissolved slowly like a block of ice.

The ordinary milk you buy from the milk wagon contains anywhere

From Forty Million up to a Billion

germs to every teaspoonful. The fact is that the number of living germs found in ordinary milk is almost as large, and not infrequently is actually more, than is found in the bowel discharges. Milk is a favorable medium for germs, and they multiply with great rapidity. Some of them double every fifteen minutes.

Now when milk is set away for the cream to rise, the germs rise with the cream, the little particles of fat catch the germs and bring them up to the top, so that when the cream is skimmed you have taken off almost all the germs, and skimmed milk has very few germs in it. Then, when the cream is churned, the fat is brought together with the germs in it, which takes the germs all out of the buttermilk. Therefore, you see that

Butter is Double-distilled Extract of Filth,

and this is put upon our tables and spread upon our bread. I am not over-stating this matter, but simply telling the exact truth about it.

If you are going to eat butter, you must be sure it is prepared in the proper way, from sterilized cream. There are creameries now which make their butter from sterilized cream. It is no longer a curiosity. For twenty years we have prepared our Sanitarium butter in this way. The cream from which our butter is made is separated with the separator, after which the cream is boiled, then cooled and made into butter. That is why you get here the nicest, sweetest butter you ever ate.

If you want to keep your stomach clean, you must not introduce into it a lot of filth. Take great pains to have your food delicate and clean. It is an utter impossibility to keep your stomach and intestines healthy, and to keep free from colitis and autointoxication, when you are feeding yourself with the germs which cause these conditions.



EAST HALL—ONE OF THE MAIN BUILDINGS OF THE SANITARIUM

point. I suggested to a patient that milk would be a good diet for him.

He said, "Oh, I can not eat milk. The last time I took milk it nearly killed me."

"How is that?" I asked.

"Well, one night I came home very hungry and thirsty, and sleepy besides. I thought I would not stop to eat supper, but I went to the pantry and drank a quantity of milk. I was so thirsty and the milk tasted so good that I kept on until I had drunk as much as three pints. I went to bed and to sleep, but about three o'clock in the morning I awoke, feeling startled and smothered, as if I were choking. I put my thumb and finger down into my throat and felt something sticking in it. I got hold of it and pulled out three yards of milk."

This man had

Neglected to Chew

the milk, and the consequence was it formed one large, hard curd at once, which his stomach refused to digest.

Many of you understand the cheese-making process, and you know how the rennet is

molds start at the surface and grow down through, and when they get to the center the cheese is broken down and partly decayed, making it very tender.

The More Decayed, the More Tender

it is, and cheese, when it is old enough, will actually crumble down. Limburger cheese is so "ripened" that it is only fit for the scavenger.

In the ordinary way of making cheese, the whey is pressed out of the curd, and the germs are captured in the cheese. The germs are growing rapidly while the milk is curdling, and while the cheese is being made. Then the cheese is put away on a shelf in a warm room to cure, and the germs continue to grow. That is what matures and ripens the cheese. If you sterilize the milk so as to kill the barnyard germs and the molds, it is impossible to make cheese out of it. The process of ripening is simply the growth of the germs acting upon the casein. The bulletin on cheese-making sent out by the United States Government is my authority for practically everything I am telling you. Cheese never becomes soft and mellow until it is partly de-

We Have Not Been Paying Attention

to these things, it is true, and we say that our ancestors did not consider them and they were all fairly healthy. But they might have added a great many years to their lives if they had not used these things. We may say to ourselves, "Oh, this is all nonsense, paying so much attention to these little things." Yet we see our neighbors dying all about us, and we find ourselves sick, and upon investigation discover it to be nothing in the world but these horrible, filthy germs that have been planted and are growing inside of us, developing and producing their poisons. That is why we have headache, coated tongue, bilious attacks, gall-stones, pimples on our face, black rings around our eyes, hardened arteries, Bright's disease, cirrhosis of the liver, and a vast multitude of other maladies.

Practical reasoning, therefore, demands that we use discretion and good judgment with regard to the cleanliness of foods which we take into our systems; that we try to obviate the unreasonable tax upon our bodies that comes from flooding them with these germ-laden agencies. Constant and widespread insistence upon these points will eventually work out a commercial reform in the production of foodstuffs, which will redound to the upbuilding of the now imperiled health of our well-beloved nation.

FOOD ELEMENTS SIX

(Continued from page one)

with lactic acid in milk, are the acids that we use as foods. The value of acid fruits has not been appreciated in the past, but in late years the value of fruit as a food is beginning to be more recognized.

The function of these acids in the body is practically the same as that of the starches and the sugars; that is, they furnish energy to the body. But besides that, they have what we might call some therapeutical uses; they are useful in a medical way, in regaining and retaining health. For instance, when a man has little acid in his stomach, we tell him to take acid fruits, not because the acid in the fruits in any way takes the place of the hydrochloric acid he should have in his stomach, but because the acid in the fruits will disinfect his stomach. Here at the Sanitarium we analyze the contents of thousands of stomachs, so we have an excellent opportunity to study stomach conditions. We never find any germs in the stomach of a man who has at least a normal amount of hydrochloric acid in the stomach.

Gastric juice normally contains two-tenths to three-tenths of one per cent of hydrochloric acid, and when that normal is departed from, either below or above, it interferes with digestion. The stomach seems to be very sensitive to the amount of acid that is present in the gastric juice. In cases where the acid is deficient or absent from the stomach, very often we find bacteria present. The person who has a small amount of hydrochloric acid should take fruit and fruit juices. The acids in the fruit juices disinfect the stomach; for germs will not grow in the presence of acid.

Acids Produce Alkalinity in the Blood

There is another very important use of the acids. In all chronic diseases the tendency

of the blood is to become acid, and it is desirable to keep the blood slightly alkaline. Acid fruits serve a very valuable purpose here. The acid fruits change the acidity of the blood back to a normal alkaline condition. And it is in this way: These fruit acids are present in large part in the fruits in chemical combination with such substances as sodium and potassium, in the form of salts, and are absorbed into the blood, where they are oxidized or changed into alkaline salts, and these alkaline salts reduce the acidity of the blood. So, for people who have any chronic trouble, particularly rheumatism, or diabetes, it is a very good thing for the patient to eat acid fruits, because they tend to increase the alkalinity of the blood, and that is a very desirable thing.

As foods, acids furnish energy, but they are principally used in maintaining health, in keeping the body clean, as it were, and increasing the alkalinity of the blood.

Next, We Mention the Salt

This word, "salt," is a chemical name, and includes all the different salts, like potassium salts, sodium salts, lime salts, phosphate of lime, carbonate of lime, salts of potassium, sodium, calcium, and magnesium; these are the principal salts. The blood normally contains a large number of these salts, and so we must take these into the body in the food in order to supply the tissues of the body. These salts come principally from cereal foods and from vegetables. In combatting certain diseases, like rickets and scurvy, the salts are very important. A child has rickets because he does not get the right kind of material to build up bone in his body. Rickets is a disease of nutrition, in which the nutrition is interfered with in such a way that the individual does not make use of the salts that are present in the food. However that may be, the bones do not get a sufficient amount of nourishment from the salts, and so, as I say, these salts are really very valuable.

In recent times some French physicians have been advocating the use of the potato in treating diabetes. Of course that would not have been thought of some years ago. The potato, or most of it at least, is starch, but these gentlemen have found out that in the potato there are potassium salts that have a wonderful influence in lessening the amount of sugar produced in the body, and so they are used in diabetes on account of the presence of the potassium salts. And so in our foods we have a great many of these different salts, and there we find them in the proper consistency for the nutrition of the different tissues of the body, and they are really very important. Their function in the body is to build tissue, especially nerve and bony tissues. They furnish very little energy.

Next, We Consider Water.

We take water into our bodies in the form of food and drink. Milk is made up largely of water. Fruit juices, and all kinds of drinks contain a great proportion of water. Four-fifths of the brain is water. The more solid tissues of the body contain less water, but our bodies as a whole are made up largely of water, and so water is a very important food element. We get no energy at all from water. We take water into our bodies as

water, and it leaves as water. It does not undergo any chemical change at all in passing through the body. In order for a food to furnish any energy, it must be changed chemically. As a matter of fact, we eliminate more water from our bodies than we take in, the extra water being produced by the oxidation of the hydrogen in our food. Water is very useful, in carrying food to the tissues in the blood, in carrying away waste through the kidneys and the skin and the lungs. In this case, the water furnishes material only, but three-fourths of the body is water.

Oils and Fats

should have been mentioned before, but we will treat them here briefly. Oils and fats also have the same chemical elements as starch,—carbon, hydrogen, and oxygen. These three chemical elements enter into all the different food elements, and the salts have other chemical elements besides these. We get fats from the animal kingdom in the form of meat, butter and cream, and from the vegetable kingdom in the form of oil. Most of the oil preparations come from the vegetable kingdom and contain these elements, carbon, hydrogen, and oxygen. The chemical make-up is most complex. So far as food value is concerned, the starches and the sugars are more valuable, but they have the same object, they furnish energy and keep the body warm, and they also have in some cases a very decided influence on the nutrition.

The Proteins

We have just one more food element, protein food. That is the thing that we hear so much discussion about. This element contains carbon, hydrogen, oxygen, and nitrogen. Because it contains nitrogen, it is sometimes called nitrogenous food. Protein food is produced in plants, and lean meat has about twenty per cent of protein elements. Nuts are rich in protein; peanuts, for instance, contain more protein than lean meats. Many people believe that they must eat meat in order to be strong; the idea seems to be quite prevalent that meat and strength go together. We do not necessarily look to meat for our protein, and this matter of protein is not the whole question as to whether we shall eat meat or shall not. There is plenty of protein in the vegetable kingdom, and in a very wholesome form. Whole wheat contains about twenty per cent of protein, gluten being obtained from wheat, as you know. Peas, beans, and nuts are all rich in protein, and it is served to us on the table in different forms.

Protose

At the Sanitarium we have in place of meat what we call protose, which is a food rich in protein. It is really a vegetable form of lean meat, although it is very much more nutritious than lean meat. And then we have malted nuts, which are rich in protein; and nuttolene; and the gluten foods; and the whole-wheat bread; and all the whole-wheat preparations; these are all rich in protein. We endeavor to recognize physiologic principles, we recognize scientific facts, and try to follow them out; so we get our protein from the vegetable kingdom instead of the animal kingdom. We recognize the

(Continued on page five)

The Battle Creek Idea

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A NEW INTRODUCTION OF AN OLD TERM

In medical, hygienic, and philanthropic circles and literature, one can not have failed to notice the recent reappearance of an old word, one which has done service in the old days of Greece, when personal heroism and prowess was the pride and hope of the nation. In those days success in warfare depended upon the development and culture of the race; and so they preached and practiced "eugenics," a general term referring to the measures to be taken for the improvement of the race. The original word was *eugenes*, meaning "well-born."

The revival of this term at the present juncture in our racial progress is most timely. Never before did so much depend upon the understanding and practice of the science and art of race development as now, for it has come to be not merely a question of race superiority, but of self-preservation.

To be well-born is the privilege of every one who is born. It is a solemn obligation that parents owe to their offspring, and the most valuable heritage they can ever bestow upon their children is to give them a fair and proper start in the world. How little real thought is given to this most important matter! It is but the plain truth when we say that the most of the children come into the world as the result of accident rather than by the deliberate and wise choice of those who produce them. Too often the prospective offspring becomes, as soon as the announcement is made, an object of aversion, and is regarded as an unwelcome invader who is coming to interfere with the plans and pleasures of those who are responsible for his coming. No particular pains is taken with the pre-natal conditions necessary to fitly prepare for the successful *debut* of the little actor upon the stage of life. Probably the father becomes reconciled to his coming, especially if he proves to be a genuine boy, and the mother's heart is opened to the natural impulses of maternal affection, the brothers and sisters do not know exactly how to regard the advent of another claimant for the family pie and cake; but on the whole,

a place is made for him, and he becomes one of the company, and probably for the time the captain.

He may be the victim of dyspepsia, his nutrition may have been sadly neglected, and his system already filled with the elements of weakness and invalidism, and he doomed to be a sufferer, or, at least, handicapped in life because he was not given a fair show before his eyes saw the light.

Too little was thought of the life that was being developed, and of the indelible influences that were being exerted upon the embryotic life to affect the individual as he became a member of society, an element for good or evil among men. There is not the slightest room to doubt that the science of eugenics begins with the unborn child, and that, in order to be well-born, the child must be well nurtured and cared for. This can be accomplished only through the nurture and care bestowed upon the mother. Parents who are themselves debilitated and defective can not produce well-developed children, and the continued production of children by degenerate or even thoughtless and irresponsible parents is sure to undermine the stability of the race.

The science of eugenics embraces the continued care and culture of the child and of the individual all through life. The race can be improved only by the improvement of the units of the race. We hesitate to refer to the more vulgar breeding of cattle and horses, but after all, the illustration is relevant and to the point. No general provision will secure better breeds of animals; it is attention to the individual specimens that counts for results. So in the development of a race and in the protection of a race from downward tendencies and from final extinction, the only barrier that is effectual is the sense of individual responsibility: First, upon the part of parents to see that their children come into the world in accord with a well-defined and distinct purpose, and that they have the great advantage of being well-born. They must see to their welfare through the period of dependence, and that they are educated and impressed with adequate ideas of the importance of the problem of life, and are made intelligent as to how the problem may be met. Then, as they assume the responsibility, they will in turn intelligently and conscientiously seek and practice all those things which make for health and strength. In this way only shall we find the practical meaning of the new old word, "eugenics."

PATRIOTISM IN THE SANITARIUM

A RATHER unique meeting of the Daughters of the American Revolution was held on the evening of August 6 in the parlors of the Battle Creek Sanitarium. The ladies whose names are appended below assembled at the appointed hour.

The newly acquainted members took up the work and dispatched the business on hand with the speed and accuracy for which these Daughters are famous. Mrs. Jas. H. Anderson, of Columbus, O., was called to the chair, and Mrs. Annie Doom Pickrell, of Austin, Tex., was made secretary. Each lady present gave her name, address, and the name of her local chapter, with a summary of the

work now on hand. The many details were noted with eager interest. The possibility of future meetings was discussed, and each Daughter who expects to remain through August promised to lend her aid toward that happy end.

At nine o'clock there was a somewhat hurried adjournment, for the thought of forgotten hot packs and ice bags suddenly intruded. Each Daughter departed reluctantly, but at heart all were happy and felt that the evening had indeed been worth while.

The following are the names of the members present, with the chapters to which they belong:

Mrs. James H. Anderson, Columbus, O., Columbus Chapter.

Mrs. James C. Buntin, Nashville, Tenn., Cumberland Chapter.

Mrs. Collins Denny, Nashville, Tenn., Campbell Chapter.

Mrs. Gazaline Lamar Ellis, Macon, Georgia, Mary Hammond Washington Chapter.

Mrs. John Haliburton, Brownsville, Tenn., David Craig Chapter.

Mrs. Chas. DeKerr, Gallipolis, O., Col. Chas. Lewis Chapter.

Mrs. F. P. McPherson, Howell, Mich., Zebulon Pike Chapter, Colorado Springs.

Mrs. L. A. Neal, Decatur, Ala., Stevens Chapter.

Mrs. Kate Hayward Palmer, Connell, O., Walter Dean Chapter.

Mrs. Annie Doom Pickrell, Austin, Tex., Thankful Hubbard Chapter.

Mrs. Ellen Braffett Reed, Richmond, Ind., Richmond Chapter.

Mrs. Enos Smith, Springfield, Mass., Percy Warren Chapter.

Mrs. Nellie Hayes Stevens, Rockford, Ill., Rockford Chapter.

Mrs. Ellen Davis Young, Duluth, Minn., Graceland D'Lut Chapter.

Mrs. Grace Peterson Colvin, Wilmington, O., Wilmington Chapter.

INSTINCTIVE THERAPEUTICS

A SANITARIUM patient relates the following circumstance as showing the wonderful instinct of animals:

"While I was living in Wisconsin, one morning on going to my work I saw a horse whose front right leg was swollen to about double its natural size. He was hobbling off slowly, as I supposed, to find a soft place to lie down and die. When I returned from my work at noon, I found he had made his way to a little mud lake which was located about a quarter of a mile from where I had first seen him, and was standing in the mud up to his body; at night when I returned home the horse was still there. Next morning the horse was still in the pond; had not moved, apparently. The next noon he was still there; at night when I went back home after working all day, the horse was still there. I should judge that he stood in that mud fully forty-eight hours without stirring, and next morning when I came by there I found he was grazing and the swelling had almost entirely subsided from his legs. I then went and notified the owner, and after examining the horse carefully, we found he had been bitten by a rattlesnake just above the fetlock. That is what I call instinct."



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Among other special advantages offered are laboratory instruction in bacteriology and chemistry, the use of the microscope, urinary analysis, practical course in cookery and dietetics, medical gymnastics, swimming, anthropometry and open air methods.

Applicants received whenever vacancies. The next class will be organized the first of October, 1910. For full information address

Sanitarium, - - - Battle Creek, Mich.

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FOOD ELEMENTS SIX

(Continued from page three)

fact that man must have protein. But excess of protein must be avoided, as it taxes the eliminative organs and is detrimental in many ways. To the excess of protein foods are attributable the toxins which produce such numerous and serious troubles in the body, known under the general term of autointoxication. Protein food remnants pass into the lower bowels undigested and decay in the colon, producing poisons which permeate the system, causing many chronic troubles, such as the hardening of the arteries, Bright's disease, heart failure, and a list of maladies whose name is legion. This fact argues very loudly and strongly for a dietary that contains no more of protein elements than are necessary for the repair of the worn-out tissues, which is an amount less than has generally been supposed.

Proteins are accommodating in their functions; their principal office is to build up the muscles, brain, nerves, blood, and all the highly organized tissues of the body. If we have enough starch and sugars, we do not need to eat much protein. But if starch and sugars are lacking and not sufficient to keep the body warm, and we have plenty of protein, then the protein lends itself and it can be utilized in keeping the body warm, in doing the work that is normally done by the starches and the sugars. So you see it is quite broad in its possible uses in the body, but its principal work is to build up the highly organized tissues.

INTERVIEW WITH HUNTER

(Continued from page one)

teen hundred mile tramp with the camera by a single other white man, who was equally enthusiastic and intrepid with himself. It was



MR. DUGMORE STALKING BIG GAME

Original from

UNIVERSITY OF MICHIGAN

his duty to carry the gun and be ready to shoot in case it was necessary to protect the life of a human being. In some cases this became imminently necessary, and the steady nerve with which Mr. Dugmore and his companion could face the fierce denizens of the African jungles is something surprising to us folks who have never seen the lion and cougar and rhino except there were strong bars between them and us.

"The fact is," said Mr. Dugmore, "I do not call it courage, for our knees fairly quaked as we stood and photographed a lion or a charging rhino within the distance of a very few yards and in full range of their fury. But we simply did not know any more than to place ourselves in such awkward positions." This was the quaint way in which the hero warded off any compliment to his nerve and courage.

"We had fifty natives as bearers. We had to pay them a small pittance besides their food, which consisted of six cents' worth of cornmeal per day. This they cooked and ate, and the endurance of those men was simply surprising."

Speaking of the many tribes which he visited, Mr. Dugmore said in his public lecture that the vegetarians seemed to be weaker than the meat-eaters. Being questioned on this point, he said: "Those tribes which eat animal food, to which I refer, really have very little meat. The women and children have none, and the warriors drink fresh blood just before going out to battle, and at the same time perhaps eat some meat, which is the only occasion on which they ever eat meat or drink blood. Their principal food is sour milk."

"What is their object in drinking blood and eating meat at such times?"

"O, simply to make them fierce and savage; they can then kill and mangle their enemies more ferociously," was the reply.

"That is not much of a recommendation for flesh food, then, in ordinary life, is it?"

"No; I eat very little flesh myself. I am greatly impressed by what I see here in this institution, where no meat at all is eaten. I am thoroughly in sympathy with this enter-

prise, and am glad to become acquainted with it."

"Do you expect to return to Africa to continue your work?"

"Yes; I shall go back next year, but on this trip I am going to study the human tribes rather than the wild animals. I became very much interested in those people, and there is much to be learned from them. I shall make a more thorough investigation of the matter of food and other habits and traditions of those tribes."

Arrangements are being made to have this gentleman make a more extended visit to the Sanitarium, and there is a mutual desire on his part and ours to have this brought about in the early autumn. He has written a book on the results of his observations and his thrilling experiences.

The best rate of the season is the one to Muskoka Lakes, Temagami, and New Liskeard, Ont., via the Grand Trunk Railway System, Thursday, August 25th. A splendid place to spend your vacation. Ask for particulars as well as descriptive booklet of this lake region.

L. J. BUSH, *Pass'r Agt.*

ARRIVALS

FOLLOWING is the list of arrivals at the Battle Creek Sanitarium for the week ending August 14: Mr. and Mrs. Thos. D. Bayre, Ind.; Enos N. B. Clemmer, W. Va.; A. H.

COLAX

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The best known remedy for constipation.

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L. J. BUSH, *Passr. Agt.*



A LION POSING FOR HIS PICTURE

and Altha Flatt, Pa.; Margaret A. Nichols, Cincinnati; L. Gordon, Ala.; Hamilton King and Wm. Burtless, Mich.; C. H. Myers, Pa.; A. W. Neib, Minn.; W. J. Minges, Des Moines; Mrs. W. V. and Chas. Tompkins, Ark.; L. B. Brydon and wife, W. Va.; Mr. and Mrs. T. B. Hyland and Mrs. A. Heyner, Mo.; E. L. Bruison and wife, Ga.; D. C. Gibbs, Mich.; Mrs. W. W. Anderson and Katherine, Miss.; O. B. Thorp and wife, Ill.; W. A. and R. P. Kittening, O.; L. H. Jones, Ill.; Mrs. A. Weil and Mrs. W. A. MacArthur, Mich.; Joe Mattox, O.; A. J. Diehl, Mich.; Mrs. J. T. Wiley, and J. B. Mansfield, wife and child, Tex.; Mrs. H. L. Browning, Indianapolis; H. W. Timbrook, Ind.; Jos. C. Perkins, Boston; Miss Margaret E. Craig, T. J. Whitten and Mrs. Nell Whitten, Ind.; R. J. Marion and wife, and Mrs. S. E. Stevah, Cincinnati; Noah N. Basenger, Eliza Basenger, and Annie Pifer, O.; Mrs. C. E. Stamp, Cleveland; H. N. Garland, Kansas City; J. R. Kimball, Detroit; Mr. and Mrs. Clarence N. Blowers, Chicago; Mr. and Mrs. W. L. Rhodes, Wis.; C. A. Alexander, Miss.; Dr. Chas. S. Levy, Ill.; H. W. Wildt, Va.; Mrs. Nels Johnson, S. Dak.; Pauline Reibestine, O.; Mrs. E. B. Price and Miss E. B. Megahan, Pittsburg; Mrs. Anna Lewis and Mrs. W. B. Carpenter, Cincinnati; Mrs. T. F. Wolfe, N. J.; Dr. A. R. Baker and wife, Mrs. W. J. Couteher, and Miss Lucile Couteher, W. Va.; J. S. Constant, O.; Mrs. U. B. Buskirk and Miss Voorhees Buskirk, W. Va.; F. B. Campbell, Ia.; T. A. Seigalski and Jazel Burkoriez, Ill.; Harry L. Stevens, Okla.; Mrs. J. R. Jarrett, C. C. Godden, Mrs. A. N. Licard, Ella Licard, McLeod

Licard, Carmalita Licard, Mrs. Samuel McCloud, and Mrs. Al Beechly, Ark.; Lena Hoag and Mrs. Jas. Van Buren, Kansas City; G. Douthney, New York City; H. C. Davis, Jr., Ind.; Cyrus B. Lucas and wife, Miss Claire Lucas and R. P. Lucas, Texas; W. O. Williams, wife and son, O.; Joseph Brody, Des Moines; L. H. Jones, Ia.; T. A. Jackson, Jr., Ark.; Wm. Randall, Ind.; H. B. Denis, N. J.; L. S. Hoffman, Mo.; Carrie L. Stevens, Okla.; Chas. H. McHeuger, Ind.; Jim Huston and wife, Mich.; Wm. T. Randall, Ind.; M. T. Mennua, Mo.; R. F. Kay and Hamilton King, Mich.; J. S. Litton and family, Mo.; E. H. Hughes and wife, Tex.; Mrs. Jas. S. Glenn and children, Okla.; Mrs. S. C. Alexander, Ark.; Miss Anna Bush, Dallas; H. H. Saller and wife, Chicago; T. Alex. Crisman, O.; Lucy Haring, Ind.; Wm. Boroughs and Wm. Boroughs, Jr., Okla.; A. B. Aikman, Ill.; Mrs. H. Cleveland, Neb.; Mrs. F. M. Meely and child, Kans.; Rev. E. Page, O.; P. P. Baumhost, O.; Mrs. A. S. Steele, Tenn.; C. L. Ragon, Ind.; Miss Katrina Myers, Indianapolis; H. S. Sehalck and wife, O.; Chas. E. Well and wife, Tex.; Mrs. W. C. McMahon, Wis.; C. J. Swasey and W. S. McRelvey, Tex.; J. C. Cary and wife and Helen Burge, Ind.; Wm. Powell, Jr., Ind.; John Thomson, Tenn.; L. S. Hoffman, Mo.; Milton Brant, Ky.; D. Pennington, Tex.; Martha Fish, Pa.; Miss Jenne Horner, Mich.; J. C. Brydon, New York City; M. H. Burke, N. J.; B. K. Holt, Mont.; A. L. Keller and wife, Tex.; R. H. Crossfield, Ky.; Mrs. Edw. B. Linkley, Mich.; Mrs. Jack Mayer, Tex.; J. P. Brough and J. P. Brough Jr., Okla.; L.

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News and Personals

Mrs. W. C. McMahon, of Racine, Wis., is again taking treatment in the institution.

Mrs. Chas. H. Marsh, of Colusa, Calif., is spending a few days here, visiting Mrs. Phinney and Mrs. Gilmore, patients in the institution.

Mr. and Mrs. J. B. Mayfield, of Tyler, Texas, have returned to the Sanitarium for further rest and treatment.

Mrs. J. R. Jarrott, of Mariana, Ark., an old friend and patient of the institution, has returned for further rest and treatment.

Dr. F. M. Martin, of Seattle, Wash., an evangelist, is taking much-needed rest and treatment at the Sanitarium.

F. H. Walker, of Pine Bluff, Ark., a planter, has entered the institution for a course of rest and treatment.

Mrs. Jack Mayer, of Fort Worth, Texas, has returned to the Sanitarium, where she will spend the remainder of the summer.

Mr. Hamilton King, American minister to Bangkok, Siam, spent several days with us last week, visiting friends in the institution.

Among the new arrivals from the South we note Mrs. N. M. Anderson and daughter, Miss Katherine, of Jackson, Miss., who will remain with us for a few weeks.

J. F. Thompson, of New York City, a retired banker, registered with us last week, and will spend the next few weeks recuperating in the institution.

Mrs. Jas. S. Glenn, of Tulsa, Okla., accompanied by her children Scott and Marie, arrived at the Sanitarium last week, where she will spend the next month taking rest and treatment.

Dr. Leslie Frazier, and the Misses Jeanette Frazier, Iva Cadwallader and Ora Robinson, of the Sanitarium helpers' family, left on the 18th inst. for the East, where they will visit Niagara Falls, Toronto and Buffalo before returning.

We were glad to have with us for a few days last week, Mrs. A. S. Steele, of Chatta-

nooga, Tenn. Mrs. Steele has many friends in and around the institution, who afford her a hearty welcome whenever she has an opportunity to visit us.

The Sanitarium Christian Endeavor Society met as usual on the evening of August 12 in the chapel, the meeting being opened with a prayer by the Rev. J. P. McNaughton. The topic for the evening was, "Do You Let God Plan Your Life?" led by Miss Elizabeth Neal. You are cordially invited to attend the next meeting, which occurs on Friday evening, August 19, in the Sanitarium chapel. The meeting will be led by Mr. Miller; topic, "Duty Under Difficulties"; Scripture study taken from 2 Tim. 2:1-13.

We all regret the departure of the Rev. J. P. McNaughton, who, with his family, has been spending the summer in the institution. Mr. McNaughton left us on the 17th instant, going to Boston, from which point he will sail on the 23d for Turkey, where he has been laboring for the people of that country during the past twenty-two years. During his stay here, Mr. McNaughton took an active part in all religious services, which gained for him many warm and admiring friends, by whom he will be greatly missed. Mrs. McNaughton and daughters will remain at the Sanitarium until the early part of next month, when she will join her husband in Turkey.

In his last lecture, the subject of which was "The Triumphs of Missions in Turkey," Rev. McNaughton stated that since the recent uprising in that country the Turks feel that the American people are in sympathy with them, and anything that can be done now to help them will be appreciated and will brighten the prospects for future work. If this opportunity is neglected it will mean a great loss to the people of Turkey. At the close of the address an appeal was made, to which the audience very generously responded.

Opportunity

If you are earning money now but not benefiting humanity while earning it, are you at your best? Gold is not the gauge of success. *Help* is the standard above the brute line. To enter the ring for gold alone is to mistreat humanity, whether a prizefight ring or some other.

If you could lecture or write like Dr. Kellogg, you would be below your calling if at other work.

If you have *opportunity* to place his lectures in book form in the homes of the people, ever at hand for counsel and guidance—a present help to health-keeping or recovery, and make money while doing it, are you doing your best while at anything less important?

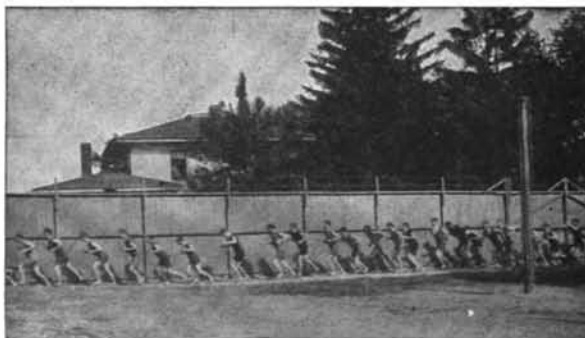
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THE BATTLE CREEK IDEA

Vol. III No. 38

BATTLE CREEK, MICH., AUGUST 26, 1910

Price 2 Cents

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Dr. A. J. Read Lectures before a Sanitarium Audience on the Direful Effects of the Cigarette

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Effect of Salt on the System

Salt is Unnecessary—Its Use is Detrimental—A Lecture in the Sanitarium Parlor by Dr. J. H. Kellogg

THE subject of salt is a very interesting one. Some sixty years ago, Sylvester Graham went about the country preaching the



SUMMER AT THE SANITARIUM

patriotism. Certain it is that good health is worth keeping, and in our consideration of our subject to-night, we shall consider it from the standpoint of good health and of patriotism; for, after all, anything that touches the health of our boys and girls

(Continued on page three)

claims nothing that is not entirely natural and simple. It has no fads to push along, no secrets to guard, and no patents or specialties to exploit. The Battle Creek Sanitarium proceeds on the very simplest and most evident principles of the healing art, and

(Continued on page three)

no-salt doctrine, and was laughed at by everybody. Forty-five years ago I renounced the use of salt and have found no ill effects from it. There is a story which has come down from ancient times about certain prisoners who were condemned to live upon bread without salt, and water, and

how these poor wretches in the course of a few weeks began to show worms in their skin, and these worms multiplied until they finally devoured the men alive. They were eaten by worms because they did not eat salt! That is ridiculous.

The idea has become prevalent that salt is necessary.

It is True that Salt is Essential,

but the error is in supposing that we must have it on our tables and add it to our food. The mistake is in the supposition that the Creator, who made the food, knew exactly what to put into it except that he forgot the salt, and we have to add that ourselves. It seems a monstrous proposition that the Lord did not know how to make potatoes. He knew how to make apples, peaches, pears, and plums, because there has to be no salt in them; but wheat, potatoes and other cereals must have salt added to them by man! Why not add lime to them? Why not add potash or chloride of calcium, or phosphates, or any of the other minerals? It is ridiculous, my friends, to suppose that anything should be left out of our foods.

The idea is abroad that salt is lacking in our foods. It is an erroneous one. We laughed at the diet reformers for a whole generation, but within the last ten years French physiologists have taken up the subject and have studied it. Now there is abundant scientific authority for the statement that all food as it comes upon our tables, contains without any addition in the cooking, all the salt the body requires. Experiments have been made which show that the food we ordinarily eat naturally contains just exactly the amount we need. So you see the body and the food are exactly adapted to each other.

Popular Notion Exploded

There have been many observations made to show the utter fallacy of the popular notion about salt. For instance, when Park explored Central Africa a long time ago, he made a record in the history of his travels of the fact that among the native tribes there was found no chlorid of sodium at all. I have talked with a number of missionaries who have been away up on the Congo, and they tell me that salt there is so precious and so scarce that a man will work a week for a handful of salt. They like salt, to be sure, but it is very little used on account of its scarcity. They like tobacco just as well as salt; and half a pint of whiskey would pay them very well for a week's work. The fact that there is an appetite for salt is no proof that salt is essential any more than that tobacco or whiskey are necessary articles. That millions of people occupying the heart of a great continent, spreading over thousands of square miles of territory, have lived from time immemorial in splendid health without chlorid of sodium is a fact of tremendous significance. It is not only the people who live in Central Africa, but the animals that live there also, that exist without salt. There are no salt-licks or salt mines in all that vast country. There is no salt except that which is found in the vegetables naturally and what is naturally found in the soil.

When you are feeding a monkey you do

not put salt on its potatoes. The monkey takes it as it grows and is perfectly satisfied with it. The potato has a good enough flavor in it to recommend it without salt. When we put so much salt on everything, salt is the only flavor we think about. When we omit the very strong flavor of salt, we find it has covered up and secreted a great number of delicate and really delicious flavors which we did not know existed.

All Animals Do Not Eat Salt

I might further mention that the argument that all animals eat salt is a very absurd one. Did you ever hear of a lady feeding salt to her canary birds? Did you ever know of any one giving salt to the neighbors' chickens? Some time ago a notice in one of our local papers told of a certain woman who had been sued by a neighbor for having given salt to some chickens which had all died. A lady some time ago told me that she gave a canary bird a morsel of something which happened to be quite salt, the canary ate it and was very soon seized with inflammation of the bowels and died. A great class of creatures, multitudes of them, live without salt; so we know that it is not necessary for them. Then there are the carnivorous animals. Did you ever hear of giving salt to dogs, or lions, or panthers, or the whole class of carnivorous animals? They do not want salt. The American Indian, when this country was discovered, made no use of salt. Even up to the present, groups of these native sons of the soil can be found living absolutely without the use of salt.

A missionary who was an archdeacon of the Episcopal church, was telling me that the Indians among whom he worked in Canada had a peculiar antipathy for salt and could not be induced to eat it. In times of scarcity they sometimes have to depend upon the Government for corned beef for food. They soak that corned beef overnight to get the salt out of it, and pour off the water before they eat it, simply because they can not endure the salt.

An old seafaring man, a friend of mine, ran away from home and went to sea when he was a boy. He told me his ship was wrecked on the coast of Siberia. The stores they managed to rescue were carried to shore before the ship foundered. Then they passed on, but came back that way some three months later, finding to their surprise a barrel of salt untouched, and there was no salt in all that country. They had expected the natives would have eaten it, but they let it alone; they had no use for it.

Extra Salt is Not Necessary

These are positive proofs of the fact that the addition of salt to food is not necessary. I have tried it myself for years at a time, and at present I eat very, very little salt. One can eat a little salt without any serious harm, but the excess of this condiment which is used all the while by the great majority of people is undoubtedly distinctly harmful. When the kidneys begin to fail in their work, the first evidence of that failure is inability to eliminate salt. Our experience has taught us to watch sharply after that thing as the first and most important indication. We owe our knowledge of this fact to eminent French physiologists who have experimented

and found it out within the last five years. The amount of salt ordinarily found in the urinary secretion of people on a vegetarian diet is from four to ten grams; while salt is thrown off through the skin also. In the summer time there is less salt excreted through the kidneys, for the reason that the perspiration carries off a larger amount, and this fact must be taken into account. The average man eats from twenty to thirty grams of salt a day, that is, from two-thirds of an ounce to one ounce, and a great many people eat still more. The actual body requirement is only one-fifteenth of an ounce. So the average man eats from fifteen to twenty times as much salt as his body requires. It has been found that salt is the cause of dropsy. Here is a man with Bright's disease who has dropsy. It is the salt he eats which causes that dropsy. That is the first cause of it. When we find a man with dropsy we take salt away from him. It is often astonishing to witness the effect. When the kidneys are unable to dispose of the salt it is retained in the body and requires one hundred and forty-three times as much water to hold it in solution.

This is the reason folks who eat so much salt are so thirsty. Every ounce of salt they take requires one hundred and forty-three times as much water to dilute it; that is, nine pints of water. The same quantity of salt we put into the body each day must be daily put out of the body in order to make room for more. If a man is able to eliminate only half an ounce of salt daily, the other half ounce remains in his body together with four and a half extra pounds of water. Therefore when a man has diseased kidneys, and his feet begin to swell, it is because he is eating more salt than his kidneys are pouring out, and he is taking water all the time in order to dilute the salt. This salt water must be put out into the tissues under the skin, because the blood will not tolerate a surplus amount of salt, its salinity being only seven parts in a thousand.

That is the Explanation of Dropsy.

If we wish to rid that man of his dropsy, the first thing to do is to take away the salt from him. Then the kidneys, which have been somewhat crippled but are still able to do a little work, will gradually take out this surplus of salt. Under such circumstances the dropsy will sometimes disappear in three or four days. Some little time ago a dropsical patient in the Sanitarium lost over twenty pounds in one week under no other treatment but complete abstinence from salted foods. Sweating baths are an excellent measure to hasten the disappearance of dropsy, for the salt and water can be thus made to pass through the skin in the perspiration, and this aids the kidneys in their work to a marked degree.

Salt and Autointoxication

Another class of patients who suffer from the ill effects of salt eating are the victims of autointoxication. These patients need to restrict the amount of salt, because the kidneys are already overtaxed in striving to throw off the poisons generated in the alimentary canal. The amount of poison produced in the alimentary canal through putrefaction is simply prodigious. It is monstrous that we

should overlook such an evident cause of disease. Every person who is suffering from inactive bowels, chronic constipation, an almost universal malady among civilized peoples, especially those of sedentary habits, these people are all suffering from intestinal auto-intoxication as sure as they live. They may not show it and may not know it, but the condition nevertheless will manifest itself sooner or later in some form of chronic disease, in high blood-pressure or in premature old age. It is one of the things necessary to be known that for persons who suffer from intestinal auto-intoxication, salt is an injurious article of diet. It diminishes the digestive power of the stomach and increases the work of the kidneys and the liver which are already overworked by the poisons poured into them in such enormous quantities from the large and small intestines.

The old saying that prevention is better than cure is both wise and true, especially in relation to those diseases which are the inevitable result of wrong habits of living and an injudicious choice of foods. Living and sleeping out of doors, exercise and a simple dietary, with abstinence from toxic and highly seasoned foods—in other words, living the simple life—these are the waymarks of the high road to health, happiness and longevity which may be found by all who seek for them with diligence.

SANITARIUM MEDICAL SYSTEM

(Continued from page one)

avoids sedulously all that is artificial or empirical or mystical, relying upon the power of the human system to recover itself from disease when proper conditions are provided, and when obstructing causes are removed. The stimulation of the vital activities, sometimes required, is accomplished by the physiologic remedies which nature has provided for that very purpose.

The Ability of the Body to Take Care of Itself

barring the interference of unnatural causes and accidents, is thoroughly believed in. Disease is an unnatural, not a natural condition. Good health is the normal condition, a condition in which the body will maintain itself until worn out, if proper surroundings are supplied by those in charge of it.

Sickness is not simply a casualty or a misfortune, but a consequence of wrong-doing. The wrong may be unintentional and unperceived, but the consequences follow just the same. The wrong may be done by one party, and the consequences fall upon another, but the results come as surely as harvest follows sowing.

The line of procedure, then, is very clearly indicated by the situation itself. It is simply to trace the trouble back to its source and discover the cause; remove that cause, put right in the place of wrong, give the system a chance to rally, and if it has become enfeebled in its recuperative power through long abuse, furnish such assistance as nature has provided. It is well known now by all intelligent medical authorities that the course mapped out above is the only rational system of medical treatment.

Two Departments of Therapeutics

There are, then, two main departments of legitimate medical practice. One of these looks to the proper nourishment of the body, and the other to the proper aiding of the body in the performance of its vital functions. The first is carried out by supplying the patient with suitable food, with suitable air and water, with adequate rest and exercise, and with favorable environments.

The second is accomplished by the application of those agents which stimulate the necessary forces required to promote the work of the body. This may be nervous force or muscular force. Through long misuse the system, or parts of it, have become enfeebled and disqualified for their work. The vital activities are suspended or impaired, and there is a lack of energy to enable them to resume and carry on their business.

To encourage the normal activity of the enfeebled system,

The Stimuli of Heat and Cold are Employed

And these are applied in various ways—



THE SANITARIUM GYMNASIUM

through the use of water, heated and cold, by electric light and heat, and by dry heat and cold.

These agencies work powerfully on the nervous system, and through it operate upon the various functions of the body in a natural way.

The electric current in varied forms is also employed to impart stimulation to the impaired organs. Manual and other manipulations encourage nervous and muscular activities; and exercise and diet combine with other measures to excite to healthy action the various functions of normal life.

The Place of Diet as a Medicine

The word "medicine" has a bitter taste to it, as though it meant necessarily some nauseous dose. But in reality it means a thing that possesses curative or remedial properties. As a large part of human physical miseries are induced by errors in dietetics, it is in correcting the diet that we may reasonably look for their cure. Food is the main source of supply for bodily strength and material. It is the source of energy and furnishes material for constructing the various

tissues. It is therefore rightly considered as fundamental in maintaining and restoring the system. At the Sanitarium the most vigilant care and the most careful and scientific efforts are continually put forth to provide patients with a diet that is as perfect in its adaptation to the wants of the patrons as it is possible to procure. This dietary is not only healthful and nourishing but toothsome and tempting, pleasant and exceedingly acceptable to the taste that is at all in harmony with natural desire.

So in each department the utmost pains are taken to bring the work into the closest possible harmony with the natural requirements of the system for the promotion of sound and satisfactory living.

THE DEADLY CIGARETTE

(Continued from page one)

touches a very vital point in our national life. To encourage studious habits, and to discourage everything that will in any way interfere with intellectual attainment would

be to preserve the well-being of our country and its future greatness.

It is a fact that a cigarette is a very small matter, but I say without hesitation that it

Has a Long Tail of Consequences.

Laying aside any intensity of feeling, or any prejudice, there are some things in regard to the cigarette that demand our attention; and what I desire more than all else, is to call the attention of intelligent men and women to the evils that attend the cigarette.

The cigarette is a numerous quantity, if it is a small quantity. Over fifty-five billions of cigarettes were smoked last year in the United States. That is, far more cigarettes than there have been minutes since the days of Adam were consumed by our boys and girls and men and women during the last year.

Cigarette smoking is increasing at the rate of over four hundred million every year. Our souls should be stirred when we contemplate this thing which will interfere with the development of the boys and girls of our country. After all, the character of a nation

(Continued on page four)

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VOL. III AUGUST 26, 1910 No. 39

AN IMPERISHABLE TREASURE

THE world has been called upon to lay away one of its greatest and most precious treasures in the person of the beloved Florence Nightingale. The work she has done remains, and will remain with us to the end of time. The memory of the sweet life will never perish. Her devotion and self-sacrifice will continue to be emulated and to bear fruit in all ages, few or many. The sagacity and wisdom with which she perceived and grasped the world's great need of trained nurses is no



FLORENCE NIGHTINGALE

doubt the greatest of all the blessings that grew out of her life.

Miss Nightingale was born in 1820, while her parents were temporarily in the city of Florence, Italy, a circumstance which gave her her Christian name. She early developed a remarkable attachment to the work of caring for the sick; and with her age this tendency increased, and gradually she withdrew from the ordinary circles of society and devoted her life to that calling. There were no trained nurses, and no training-schools for such. But she visited hospitals and worked for the sick there and in domestic life until the art of nursing became to her mind clear and distinct; and she then gave to the world

its first lessons in scientific, systematic and organized nursing.

The Crimean war with its horrors burst upon the European world, and there was great destitution and suffering among the wounded and sick soldiers, especially in the British army. She had already gained notoriety as a nurse, and her proffered services were gladly accepted. There, upon the field of battle and in the hospitals, she gained the undying fame and name that has since characterized her as "The Angel of Mercy." Her own health failed, she suffered with fever and returned home broken in health but not in spirit.

The influence of her inspiration was powerfully exerted upon the world, and from that influence has proceeded largely the movement resulting in the great army of trained nurses that now bless suffering mankind. Florence Nightingale has been for many years a household word, a name for compassion and mercy. She lived to see some of the fruits of her sacrifice when for a life of self-denying service she cast aside the allurements of social life and embraced the cause of suffering humanity. She died on August 13 at her home in London, at the age of ninety years. But it may be said of her also that, "being dead, she yet speaketh."

SHALL OUR WOMEN SMOKE?

A RECENT current paper is wondering why so much needs to be said about certain ladies of this country indulging in the cigarette habit, while it is so very common in English and Continental society as to excite no comment at all. The paper proceeds to name numerous women of high standing who make not the least effort to conceal their fondness for the cigarette and even the cigar, and are seen smoking in public places. The ladies in such circles no longer retire from the table at the close of dinner and leave the men to their cigars and their questionable stories, but remain to enjoy (?) them with the men.

The fact that titled and noble women are descending to the low level of a vicious and in every way questionable habit is no recommendation for the habit, but a sad commentary upon the evident drift of modern society. It may be asked whether it is any worse for a woman to smoke than for a man. To this we must reply that it is immeasurably more mischievous, because of the purer standing which we accord to womankind. Woman has by common consent in all Christian countries been placed upon a higher and better plane of character than that accorded to man. The smoking habit is no honor to any man, it is a flaw in his character and a blot upon the absolute purity of his life. We say it seriously that though there are many gentlemen and many good men who smoke, there is not one of them who would not be better and healthier and cleaner and purer if he did not smoke.

There are but few men who do not take pride in the fact that they can look up to their wives and mothers as living in a better and purer atmosphere than that which they breathe. Their words and thoughts are higher and sweeter, the innocence with which mothers and wives are vested in our estima-

tion is the safeguard of our society. But when our women voluntarily sacrifice that high estate and come down to the vulgar and degrading habits which are allowed to exist and remain current among men, the loss both to the woman and to the man is very great, and very serious. Let us hope and pray that the day when woman loses her holy caste may be long delayed.

THE DEADLY CIGARETTE

(Continued from page three)

is the character of its people, and the accomplishment of a nation is the accomplishment of its people; and what it is possible for the people of this nation to accomplish means more to us than anything else.

The Drug Ingredient

that enters into the cigarette is nicotine, which is the active principle of tobacco. I do not mean to say that nothing else than tobacco ever enters into cigarettes, but it is the principal ingredient with which we have to deal, and its poisonous effects upon the body are those which are most commonly observed. To be sure, it is possible that cigarettes might be drugged for some special purpose for a short time. It could only be to get people into the habit of using the particular brand of cigarettes by drugging them in some particular way; but I do not think that is very common.

I think the principal thing we have to consider in connection with the cigarette is this drug, the characteristic effect of which is quite well known. Perhaps many in the audience to-night can remember its first effects. Even men who have formed the smoking habit can remember the time when they had their first cigar, the feeling or nausea and that deathly pallor that crept over them; how they were deathly sick and almost went into a condition of collapse. The chronic symptoms of the drug will be brought out as we consider it and its relatives, for the cigarette has a large and well-known family; and they are, plug tobacco, fine cut, snuff, the pipe, and the cigar. They all belong to the same family, and the same characteristics are more or less present with some variations, though there are some things about it which are peculiar to the cigarette, and to which I will call attention. This subject of the effect of the cigarette upon the boys of the nation is commanding more or less attention as a new peril which has taken hold upon this country.

Cigarettes Were First Introduced

into the United States at a school in Troy, N. Y., a school attended very largely by Cubans and those who came from the West Indies. From that little beginning it has spread like a wildfire. A cartoon appeared in a newspaper some time ago depicting the horrible side of the habit, and the conversation underneath it was between a father and his son. The son said, "Father, what is a dude?" The father replied, "A dude, my son, is a worthless attachment at the damp end of a cigarette." This is the father's definition.

The opinions of men of prominence are interesting in this connection. Thomas A. Edi-

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son, the man who has made such a success that the whole world is literally ablaze with his glory, was coming into his office one morning when he picked up a package of cigarettes that some one had lost. He wrote a little note and fastened it to the door of his office, with this inscription; "FOUND—near my office door, a packet of cigarettes. Some degenerate, retrograding toward the lower orders of animal life has lost his packet. He may have the same by calling on the storekeeper." This incidentally shows what Mr. Edison's opinion is of the general effect and tendency of the cigarette.

Dr. William E. Quine, professor of the principles and practice of medicine and clinical medicine at the College of Physicians and Surgeons, of Chicago, says: "Whether the cigarette causes imbecility, or whether a congenital condition of imbecility leads the individual to the use of the cigarette, I do not know. So far as I am willing to express myself on this subject, I say sincerely that the cigarette and imbecility are related in some way."

Of course men may smoke cigarettes without being killed by them, and many men do. But no man ever smoked a cigarette without being hurt by it, and no man ever will. There are tens of millions of Chinese who smoke opium without becoming opium fiends, but opium is none the less the curse of China.

Cigarettes always mean destruction to the youth; they very often mean failure in life and an unnecessarily early death to adults. They are unmanly, obnoxious, nerve and mind destroying. It is unbelievable that any human being in his right mind should deliberately encourage their hold on his nervous system and his success in life.

Scientific Facts

Do the scientific facts really bear out the findings of newspaper reporters and editors — do they agree with public opinion? You know we have five general nervous senses. One of these is the sense of touch. On the end of a man's finger are little rough places, and these are full of the tactile corpuscles by means of which we have the sense of touch. These little corpuscles are so numerous over the surface of the body that you can hardly touch the point of a pin anywhere upon the body but you touch these little corpuscles, all of which are connected through the spinal cord with the brain. The fibers pass from the body into the spinal cord and are gathered together in bundles, passing up through the spinal cord in these little bundles. These nerve fibers pass up through the spinal cord to the brain, and others down again to the tissues that are to be affected. We can measure the rapidity of these impulses, know just how fast they travel from the spinal cord to the point where their work is carried on; and so we are able to determine the effect produced by the drug tobacco. I wish to read in this connection a quotation from one or two authorities on the effect of tobacco upon the nervous system. First of all, I will quote from

Alfred A. Woodhull, A. M., M. D., LL. D.,
Brigadier-General of the U. S. Army:

"Next to prussic acid, nicotine is the most active poison yet recognized. It acts upon the motor nerves, first abolishing their conductivity and then that of the motor paths

in the cord, so that, as the nerves fail to induce muscular contraction, the muscles no longer respond normally to the requirements of life, and in fatal cases death is a consequence of paralysis of the respiratory muscles.

"But, excepting where foolish smokers consume a vast amount of tobacco on a wager or otherwise, or nicotine as such is inadvertently taken, such directly fatal results, or anything approaching them, are not to be anticipated. It is notorious, however, that this interference with the motor power disturbs the subject's ability to do delicate mechanical work, even that of drawing right lines and other precise manipulation, as in watch-making, or in the construction and handling of fine and exact instruments; and, naturally, the less mature those controlling nerves may be, the more readily they respond to the poison. It is equally well established that men training for any form of athletics abandon tobacco, at least for the time. Experience has shown that better work can be done without it.

"But, besides its influence on the motor nerves proper, it is believed that tobacco acts on the vasomotors in such a way as to diminish the calibre of the capillaries."

The capillaries are those very minute blood-vessels that supply the tissues of the body everywhere, so numerous that you can not puncture, even with a needle, the body anywhere without letting free the blood from some of those capillaries; and the effect of nicotine upon these motor nerves is to cause these capillaries to contract and thus interfere with the nutrition of the tissues.

From Luther Burbank.

I read this little quotation in regard to his observations:

"I never use tobacco and alcohol in any form, and rarely coffee or tea. I can prove to you most conclusively that even the mild use of stimulants is incompatible with work requiring accurate attention and definite concentration.

"To assist me in my work of budding—work that is as accurate and exacting as watch-making—I have a force of twenty men. I have to discharge men from this force if incompetent. Sometime ago my foreman asked me if I took pains to inquire into the personal habits of my men. On being answered in the negative, he surprised me by saying that the men I found unable to do the delicate work of budding invariably turned out to be smokers or drinkers. These men, while able to do the rough work of farming, call budding and other delicate work 'puttering,' and have to give it up, owing to an inability to concentrate their nerve force. Even men who smoke one cigar a day can not be trusted with some of my most delicate work.

"Cigarettes are even more damaging than cigars, and their use by young boys is little short of criminal, and will produce in them the same results that sand placed in a watch will produce—destruction.

"Several of my young acquaintances are in their graves who gave promise of making happy and useful citizens; and there is no question whatever that cigarettes alone were the cause of their destruction. No boy living would commence the use of cigarettes if he

knew what a useless, soulless, worthless thing they would make of him."

Here is another quotation, from a lecture which Doctor Kellogg gave at a Y. M. C. A. meeting where I happened to be present:

"I have a little instrument with which we measure the time it takes a man to think, or to feel. On one occasion I called some boys forward. Half a dozen boys came up. We tested one boy and it took him one-seventh of a second. I tested another boy, and it was one-tenth of a second; in another boy it was one-sixth of a second; and in one boy it was a second and a half. What was the matter with that boy? The boys watched very sharp. They each looked at the dial themselves to see what was indicated and to make sure that it took that boy a second and a half to do what one did in one-fourteenth

of a second, so that it was twenty-one times as long for this boy as for the other, and they all shouted out at once, 'He smokes cigarettes!'

The effect upon the disposition, upon the nervous system, and upon the co-ordination is such as to prevent people from reasoning, and being philosophical, and to prevent them from being kindly and agreeable. It has been recognized commercially by men in charge of railroads. I will quote only one:

"Pittsburg Railways Company, Notice to Employees

"For the betterment of the service and the safety of the public, it will from this date be the policy of this company *not* to retain in its employ men who use intoxi-

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eating liquors or cigarettes or are in the habit of gambling. While it is the privilege of each individual to eat, drink, and smoke what he pleases, it becomes the duty of this management to have in its service only men of sober and temperate habits, *physically* and mentally able to perform the duties to which they may be assigned."

Now, this is a matter of commerce; it is a matter of safety to people who are traveling on the railroads, and this conclusion was only arrived at because after observation it was found that a large part of the accidents which happened could be traced to these causes. They found that the large majority of accidents were associated with some of these evils, and cigarettes occupied a very prominent place in their causation.

Prof. Charles Mohr, of the Hahnemann Medical College, Philadelphia, said that it had been proved that the free use of cigarettes by boys had a tendency to make thieves and liars out of them. He also declared that a great majority of boys haled before the juvenile court were liberal users of tobacco.

I saw in a paper recently an account of a boy who went for employment to one of the large department stores, and the man in charge said, "Do you use cigarettes?" The boy said, "No." The man looked at the yellow stains on his fingers, noticed his trembling hands, and his haggard expression, and he said, "My boy, there are some things that are worse than cigarette smoking. If you will go home and learn to tell the truth, and give up your cigarettes long enough so the yellow stains will get off your fingers and you will get a little more color in your face,

then come back and tell me you do not use cigarettes, and perhaps I will believe you."

Here are some of the headlines I have copied from recent papers: "By a cigarette fiend. Pretty New York girl was stabbed three times after fighting hard for life." "Forty cigarettes a day destroy youth's mind." "Girl crazed by cigarette smoking. Mamie King removed from her home in a violent condition. Her reason is despaired of." "School teacher crazed by cigarettes."

These are but the merest samples of facts that come under our observation continually and that unmistakably point out the dreadful character of this evil.

ARRIVALS

FOLLOWING is the list of arrivals at the Battle Creek Sanitarium for the week ending August 21: E. M. Biddle, Philadelphia; Mrs. D. B. Gotham and Miss N. E. Beattie, N. Y.; Mr. and Mrs. W. C. Orr, and J. M. and Fred J. Orr, Ga.; J. M. Lang, wife and son, W. Va.; R. F. Kay, Mich.; Fred W. McDonald, Ala.; A. Board, Ky.; Jessie Sherwood, Ia.; F. W. Walker and wife, Ark.; Miss Hurd, Ill.; Geo. Parrett, Pa.; C. E. Howard, Ky.; Theresa Nugent, Pa.; Mrs.

Low One-Way Rates TO PACIFIC COAST POINTS

VIA

The Grand Trunk Railway System

Tickets on sale to California, Nevada, Arizona, Mexico, Aug. 25 to Sept. 9th, also Oct. 1st to Oct. 15th. To Colorado, Utah, Wyoming, Aug. 25th to Sept. 9th; also Sept. 15th to Oct. 15th. To Montana, Idaho, Washington, Oregon and Canadian Northwest, Sept. 15th to Oct. 15th. Stop-overs allowed at certain points. Full information gladly given.

L. J. BUSH, Passr. Agt.

SCHOOL of DOMESTIC SCIENCE



A CLASS DEMONSTRATION

The Fall Term begins September 14, 1910.

COST	Tuition	\$50.00 per year
	Room (with room-mate)	1.00 per week
	Table board	2.00 per week

The Battle Creek Sanitarium School of Health and Household Economics furnishes two courses in Domestic Science, based upon the principles of Health and Hygiene as established by the most recent findings of scientific investigation.

THE ONE-YEAR COURSE

Is especially designed for matrons and housekeepers, and those who desire education and training in Cookery, Dietetics, Chemistry, Home Nursing, Household Economics, and kindred subjects.

THE TWO-YEAR COURSE

This course gives necessary instruction and training to prepare those who take it to fill positions as dietitians, lecturers, and demonstrators.

Details of courses are given *in extenso* in the Annual Announcement, which will be sent on application.

A SPECIAL FEATURE of this School is that students are given an opportunity to meet a large part of their expenses by employment of a character that will aid them in their training.

Address all inquiries to

The Sanitarium School of Health and Household Economics,

LENNA F. COOPER, Director,
Battle Creek, Michigan.

Ira Davis, W. Va.; Mrs. W. U. Tompkins and Charles, Ark.; G. G. Gans, Pa.; Mrs. M. J. Nelson, Ind.; Mrs. Irma Earl, O.; J. T. Yarder and D. H. Mast, Ind.; Edith Stewart, Ia.; Cora A. Wilds, Chicago; Miss N. Kleen, Okla.; Miss S. Kleen, W. Va.; Joe Zork, Tex.; C. H. Belknap, Tenn.; S. M. Cooper, Cincinnati; Miss M. Grandy and Miss Ingoldsby, Pittsburgh; W. G. Reynolds, wife and daughter, O.; Harold G. Coburn and E. Alberta Raven, Mich.; S. M. Yonan, Mo.; John W. Pugh and wife, New Orleans; Mrs. John Dows, Ia.; L. E. Thomas and wife, and Miss Lois and Jas. M. Smith, Jr., La.; Mrs. W. F. Nast, New York City; D. F. Swanson and Mrs. Emma Blodgett, Pa.; F. J. Klein, Ark.; Mrs. B. I. Ranch and Mary, and Wm. E. Ranch, Ind.; P. E. Hall, Kan.; Miss Mattie Palmer, O.; Frank Van Allen, Va.; G. W. Galehouse, O.; H. C. Reinorhe, Ill.; Mrs. Ella Welsh, Mich.; E. P. Alus, Jr., Milwaukee; E. M. Smith, Ill.; Mrs. E. H. Sterling and Miss Lorraine, Calif.; Mrs. E. H. Johnson and Mrs. H. E. Bassett, Pa.; A. L. Doremus, New York City; Hazel F. O'Neil and Mrs. Minnie O'Neil, Ont.; H. E. Ebler, A. E. Ebler, and W. E. Reid, New York City; B. F. Morrill, Ind.; C. B. Williams and wife, Miss; L. B. Lookabill and Alf. Lookabill, Ind.; H. G. Zimmermann, Ind.; Miss Mary M. Belaer, Chicago; W. R. Graham and wife, Tex.; Ben T. Perkins, Ky.; Mabel Jane Dewey and Wm. Lyons and wife, Ill.; E. Z. Griggs and Mabel K. Griggs, Pa.; Nellie Griggs Dayton, New York City; G. A. Dayton, Pa.; R. E. Griffin, Minn.; S. F. Jones and wife, Pa.; Lewis Ulrich, Tex.; Mrs. Adam Walkman and Master Karl, Mo.; Lelie J. Owen and Master Russel, Ill.; Arthur B. Hall, Chicago; G. S. Barber and son, Tex.; Mrs. W. E. Reid, Porto Rico; A. L. Demarder, Jr., Ind.; Geo. L. Cooper and family, Ia.; W. R. Graham and wife, Tex.; Mrs. Allen Baker, Mo.; H. H. Webb, O.; Ben Rothschild, Ind.; Wm. Burtless, Mich.; H. J. Richardson and Lewis Weeks, Jr., Tenn.; Ella Heston, Ind.; J. H. Haliburton, Tenn.; Miss Jennie M. Henry, Tex.; Nellie M. Stevens, M. D., O.; N. P. Clarke and Miss Charlotte E. Clarke, Minn.; Mr. and Mrs. Jos. Warner and Lillian Warner, Tenn.; Mrs. M. D. Forman, Ky.; Mrs. and Miss Adler, Detroit; I. H. Lowenkaupt, Tenn.; W. E. Hunt, Mich.; A. T. Dunn, Mo.; A. F. Cot, Ind.; W. B. Repp, Kan.; Luther James, Mich.; Ed. Croakin, Detroit; Jas. Lyons, Ill.; J. A. Huston and wife, O.; Mary L. Conlin, New Orleans; Mrs. L. S. Kain, Miss.; Mrs. W. Bishop, Detroit; F. H. Gifford, O.; E. B. Van Dorn, Chicago; Sue S. McKelvey, Niagara Falls; Mrs. O. H. Sebring, Hazel and Urtida Sebring, Mr. and Mrs. W. Murphy, O.; W. G. Hubbard, W. Va.; W. B. Gray and wife, and John L. Carney, Fla.; P. F. Haskell, M. D., Chicago; P. O. Boyd, Calif.; F. M. McKay and wife, Chicago; Chas. F. Riley, Mo.; W. P. Tuttle, N. Dak.; C. E. Bueck, Chattanooga; Wm. W. Billson, Duluth; Dr. Pauline Bertram and Ora S. Boyer, Ia.; Henry C. Davis, Ind.; Michael Provosty, New Orleans; Miss Casey, Tex.; H. C. Medaniel and wife, Fla.; Wm. G. Cramer, Cincinnati; Oliver Moore, Mich.; R. F. Pettigrew, S. Dak.; A. D. Campbell, Miss.; G. W. Fassett, Pa.; Robert Greever, Mo.; F. H. Daley, Kalamazoo; Arthur J. Doyle, Fla.; Thos. D. Bayne, Ind.; F. W. Schifflin, Tex.;

Mrs. S. H. Herbert and child, Ala.; Mrs. Y. Israel, Detroit; Miss A. Desinger, New York City; Henry Levy, Mo.; R. L. Cherry, Ark.; Mr. and Mrs. J. M. Head, Tex.; Mr. and Mrs. Otto Schafer and son, O.; Edw. Keith and Francis Keith, Mo.; Wm. Lee Ellis, Ga.; G. W. Smith, Mo.; S. E. Gorman, Tex.; H. M. Whitaker, Miss.; F. W. Williams, wife and son, Miss.; Mr. and Mrs. H. W. Mount, Ill.; Mrs. A. J. Stephen, Mont.; Mr. and Mrs. Wm. J. Joyce, O.; Mr. and Mrs. John C. Wharton, Neb.; Mrs. Walter C. Mack and Florence, Christian Mack, and Mr. and Mrs. Wm. Opritt, Sr., Mich.; W. A. Chatfield, N. Y.; Mrs. Henry Marks and Master Lewis, Miss.; J. A. Leathres, Miss.; E. C. Sturdevant and wife, Tenn.; Mrs. S. J. Meadows, La.

News and Personals

Atty. A. T. Dunn, of Jefferson City, Mo., is taking much-needed rest and treatment at the Sanitarium.

H. E. W. Smith, of Kansas City, Mo., a prominent real estate dealer, registered with us last week for a course of treatment.

Rev. S. F. Martin, D. D., of Seattle, a celebrated evangelist, has been stopping at the Sanitarium for a few weeks, and left us this week to resume his work in Kansas.

Nellie M. Stevens, M. D., of Galion, Ohio, is visiting Dr. Clara Radabaugh in the institution. Doctor Stevens is a graduate of the American Medical Missionary College, class of 1907.

The Normal School of Physical Education closed its summer term this week. The term has been a successful one. The closing exercises were held in the gymnasium on the evening of the 23d and consisted principally

of an exhibition of the work done by the school, the students executing the various movements and exercises in which they had been drilled. The field sports were given on the evening of the 25th and attracted a considerable crowd, who witnessed with much interest the various contests. We shall be able to give a more detailed account of the exercises next week.

"Duty Under Difficulties" was the subject of the Christian Endeavor meeting Friday evening, August 19. Dr. Otis Hayward, of Nashville, Tenn., gave an interesting talk, having labored under difficulties in missionary work in the South. Song service was conducted by Mr. Weneke, with a solo by Mr. Matthewson, "Was That Somebody You?"

Topic for next Friday evening, August 26, is "Progress of Christ's Kingdom this Year in Asia." This will be a missionary rally and an interesting meeting. If the ladies will see Miss Zahn in the medical office, and the men see Mr. Quail at the men nurses' department, they can procure topic cards, which will be a help in study during the week. Sanitarium chapel is the place; Friday evening, 7:45 is the time. Everybody welcome.

BREAD

A NEW and novel Bread Book has just been issued by the Passenger Department of the Grand Trunk Pacific Railway. The cover is an imitation of a bread basket. Inside the "basket" are a number of illustrations picturing the bread winners at work, ploughing, reaping and threshing scenes; and running through the pictures are the wonderful stories of progress and development of that wonderful West now waking at the touch of the steel fingers of the Grand Trunk Pacific. Please ask for copy.

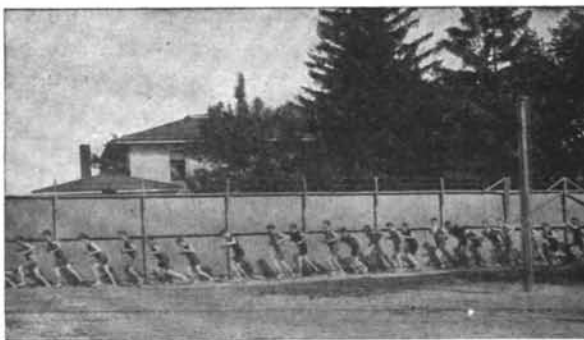
L. J. BUSH, *Pass'r Agt.*

Normal School of Physical Education

A Great Opportunity for Men and Women

A Two-Years Course. Each year comprises thirty-five weeks and an eight-weeks Summer Course.

By Affiliation with the American Medical Missionary College and the Battle Creek Sanitarium the students of this School enjoy extraordinary advantages in the study and practice of Physiology, Anatomy, Hygiene, Chemical Analysis, and the various methods of Treatments that have made this institution famous.



The Equipment is complete in gymnasium, laboratories, and swimming pools.

Tuition for the full year, \$100, including Summer School; for the rest of the year, \$75. For the Summer Term alone, \$35. Board \$3.00 to \$3.50 per week.

Unusual opportunities are given for earning money toward expenses.

For full particulars address:

WM. W. HASTINGS, DEAN, SANITARIUM, Battle Creek, Mich.

THE BATTLE CREEK IDEA



Vol. III No. 39

BATTLE CREEK, MICH., SEPTEMBER 2, 1910

Price 2 Cents

The People One Meets

Sanitarium Guests an Interesting Lot of
Folks

THE Sanitarium presents at this season of the year a most attractive and beautiful sight from any of the many points of view. Last week recorded the largest attendance ever reached in the history of the institution, and everywhere life and animation are abundant. On pleasant days, and the days are very pleasant now, the lawns present an attractive appearance, with hundreds of ladies and gentlemen scattered over them, resting in easy chairs and settees, or perhaps lying on the soft green carpet of grass. They are gathered in lively groups or sitting quietly with their books and papers.

In the lobby the scene is more animated as people are passing here and there. There is everywhere a spirit of peace and quiet very different from the rush and push of the busy world, and one falls naturally into a study of those around him. One is surprised to see so little evidence of suffering. It is often remarked, "Why, I expected to find a family of long-faced invalids, with the appearance of sickness and debility on every side. But here I find a happy lot of people, with smiling countenances and nothing to remind me of the hospital or infirmary."

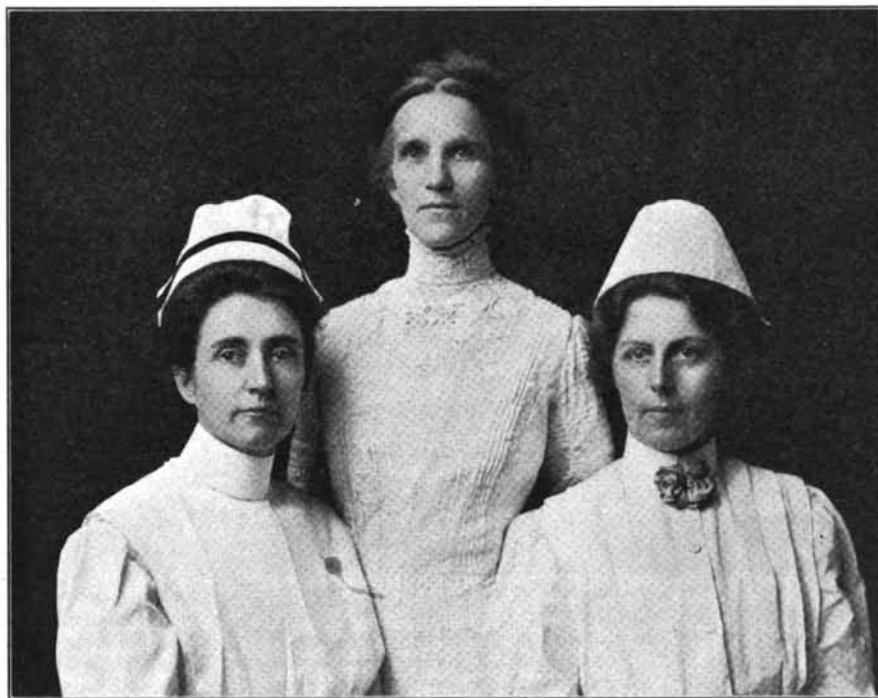
The large family of Sanitarium guests are evidently select people from various walks and social circles, of different professional, business and industrial callings, but all of that class that constitutes the very best associates; so there is no need of class distinction.

(Continued on page three)

THE BATTLE CREEK IDEA AT CHAUTAUQUA ASSEMBLIES

An Active Summer's Campaign Just Closed
by Doctor Carolyn Geisel and
Her Associates

THE work of representing the principles of the Battle Creek Sanitarium on Chautauqua platforms is left very largely with Doctor Carolyn Geisel and those associated



DR. CAROLYN GEISEL AND HER ASSOCIATES.
MISS DANCY AT THE LEFT. MRS. EMMONS AT THE RIGHT.

with her. Doctor Geisel is a lady of culture, her father being a minister of the Gospel; and his daughter Carolyn received, in addition to a liberal literary education, the medical degree in the University of Michigan.

She came to the Sanitarium some years ago very much broken in health, and at once received joyfully the principles taught here, and upon the recovery of her health began the work of getting them before the world. Although not of robust form or health, she has for several years labored almost con-

(Continued on page four)

The Truth About Fasting

It is an Unnecessary Waste of Good Tissue—A Lecture in the Sanitarium
Parlor by J. H. Kellogg, M. D.

FASTING is the process of consuming one's self. If one does not eat from the table, he feeds upon himself. We can not live without eating; we must eat every moment of our lives. We take food on installments at mealtimes; but we are using or consuming the food all the time.

When we take food it is exactly what the locomotive does when it stops opposite the water tower and the big coal bin. The mealtimes are simply stations where we take on fuel. We take on water between stations, but fuel is taken on at mealtime stations. Food is fuel, and that is the way we keep the body warm. In the intervals between meals we are burning up the fuel. The body is the furnace in which the fuel is continually burning. A pound of bread eaten and consumed in the body makes just as much heat as if the bread had been put into a stove and burned there.

A Loss of Two Pounds a Day

Suppose we did not eat the bread or take any other food for a day. There would be a loss of one-eighth of the weight of the body every day during fasting. If the man weighs one hundred and sixty pounds at the beginning of his fast, he will lose two pounds every day that he does not eat. If a man does not eat bread, potatoes, fruit, or other wholesome things at the table, he feeds upon himself, and gnaws his own bones. First, he consumes the sugar that is in his liver. A

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man has about half a pound of sugar (not cane sugar) stored up in his liver and in the muscles. In the course of twenty-four or forty-eight hours that sugar is all eaten up. The body naturally needs a great amount of carbohydrates. When we take a natural diet we eat daily about a pound of carbohydrate material, as maltose or sugar, and starch. The next thing to burn up is the fat, and after that the muscles and nerves.

The Last of All to Suffer is the Brain

That the body is burned up in this order has been proved by experiments upon human beings. The first fat to be consumed is the padding beneath the skin and behind the eyes. The eyes of a fasting person are always sunken, for the cushion of fat upon which the eye rests, so that it will not be hurt by jars, has been used up. There is also a small layer of fat just over the cheek, together with other masses placed about other parts of the body, which are then consumed. After this, the internal pads of fat which surround the kidneys, heart and all the other vital organs likewise disappear.

After the sugar and fat are gone, the muscles are attacked, and the glands and nerves are consumed. It is exactly like a fuel famine in the house. You have burned up all the fuel there is in the fuel box. Next you go to the ash-pile and sift the cinders from it and burn them. When the cinders are gone, you look around for old dry goods boxes and such things, and burn them up. Then you hunt up some old furniture, and after that begin to tear off the wainscoting and casings from the doors and windows to keep from freezing to death. In other words, you attack the house itself. That is exactly what the body does. Suppose you should go on tearing away the walls and taking out the studding, the walls would become so weak that the roof would fall in and you would have a catastrophe.

Obeys and Live

Fasting is exactly the same thing. It is just as necessary for us to obey that law of Nature which says, "Thou shalt eat," as to obey the injunction, "Thou shalt drink water." These are instinctive laws within us that command us to do things; if we neglect to do them, we must suffer dire consequences. When you are thirsty, that is the divine voice telling you to reach out for water and drink. When you are hungry, the same voice is saying to you to "Eat and live," eat the bounties which heaven has provided that save life. And so, when we feel a sensation of a need of air, that is a divine voice telling us to breathe; and to resist any of these instincts is an immoral thing. You have no right to say, "No matter how thirsty I am, I will not drink until a certain day," any more than you have to swear or to steal. In so doing you are disobeying a command of God which tells you to drink, that your body needs water. We hence have no right to refuse to eat and drink, because there is One who is far wiser than we, who has charge of our bodies. The Maker of the temple in which we live presides over it and is caring for it, directing and protecting it all the time. A great many things are being done every moment of our lives to keep us in life,—things over which we ourselves have no control. If any of those things should cease to be done, we would

die at once. The heart is kept beating by a miracle; the lungs are kept moving while we sleep by a miracle; it takes the same power to keep a man alive that it did to make that man; and when a divine voice speaks to us, telling us what to do, it is our duty to do it.

There is No Virtue in Going Hungry,

suffering thirst, or holding the breath until we are black in the face. These are offenses against nature that we have no right to commit. It is our duty to obey these divine commands to us, and to obey them intelligently. We have no right to go contrary to these voices; for they tell us what is good for us and what we need.

There has come down through the ages an idea that fasting is a virtue; that it is a divinely blessed thing to fast; that by fasting and allowing ourselves to waste away, we are courting favor with the Almighty. There never was a greater heresy than that.

The Scriptural Fast

I invite you to read the fifty-eighth chapter of Isaiah, where the acceptable fast is described. "Is not this the fast that I have chosen? to unloose the hands of wickedness, to undo the heavy burdens, and to let the oppressed go free, and that ye break every yoke? Is it not to deal thy bread to the hungry, and that thou bring the poor that are cast out to thy house? when thou seest the naked that thou coverest him; and that thou hide not thyself from thine own flesh?" Divine fasting is not to go hungry, but to share our blessings with others and to practice self-denial for the good of others.

Have Not People Been Benefited by Fasting?

Most assuredly people have been benefited by fasting. For instance, here is a house in which the housekeeping has been so badly done that all is in great disorder; there are heaps of dirt lying in every corner, and in the pantry. Some one has emptied the coal scuttle on the parlor floor and a heap of cinders and ashes under the piano. In the sitting-room and kitchen there are great piles of waste paper, garbage cans and other debris are standing all around the house. The housekeeping has been generally neglected. A fuel famine would be the best thing in the world for that house. The rubbish and dirt would be put on the fire and burned up, and if the fuel famine lasted, the house would be cleaned out.

Some people are in exactly that condition, after they have been swallowing all sorts of food and some things that were not food at all and were never intended to be swallowed. A certain Chicago man confessed that he had eaten eighty-six wagon loads more than he should have eaten. He must have been, most of his life, in a condition where a fuel famine would have done him good, where fasting for a day or two, long enough to burn up the rubbish, to get the cinders out of him, would have been beneficial.

The body has power to clear up in a little while all the rubbish which has accumulated as the result of an improper dietary. This is the only possible cause for a fast on general principles. There are other special occasions when the stomach can not digest and

needs a rest, just as an inflamed joint must be made immobile. A rest is the best thing in the world for it. Likewise an inflamed stomach needs rest. But we are referring now to the man who is bilious, or perhaps is a little over-fat; the man who has a bad complexion, and has impurities in his system. The impurity in the system is like the scuttle full of cinders in the parlor. Suppose, for example, a man had been eating beefsteak a year, and his kidneys had gotten behind in their work and he had stored ten grains of uric acid for every pound of beefsteak he ate. There are about fourteen grains of uric acid in a pound of beefsteak. The body eliminates from four to six grains a day, so there may be ten grains of uric acid left behind. In a year that would amount to three thousand six hundred and fifty grains, which is practically half a pound of uric acid that a man might, on this supposition, store up in his body in the course of a year. Such a man might say, "I have so much uric acid in me that I think I will take a fast." So he takes a fast and reduces his weight, in the course of twenty-five days or so, by forty or fifty pounds. In other words, he

Throws Away Forty Pounds of Good Flesh

in order to rid himself of half a pound of uric acid. He does not need to get rid of his good fat unless he has too much of it. He does not need to throw away his muscles or his nerves. He only needs to dispense with that half pound of uric acid; and yet the man will lose thirty or forty pounds of good tissue to get rid of one-half pound of uric acid or waste matter. It may be so great a benefit to him to be free from the uric acid that he will be better off than if he had not fasted. But the question is, Could not the same good have been accomplished in a less expensive way?

It is patent folly to burn up so many pounds of good flesh in order to dispose of a little undesirable material. Of the three food elements, carbohydrates, fats, and proteins, the waste we want to get rid of is unused protein. The fat we have under our skins does no harm unless it is so much as to be cumbersome. The little carbohydrates and sugar stored up in our liver is not doing any harm; it is useful and necessary for the body to have this extra store. The protein in our bodies which is only partly burned, which is in a state of partial oxidation, is a poisonous substance, and we must get rid of that. In order to accomplish this it is not necessary to starve ourselves of carbohydrates, nor to deprive ourselves of fat. It is only necessary that we dispense with protein, or at least reduce it in amount. A man who is supposed to need a fast to clear his body from impurities,

Needs a Protein Fast.

Protein is directly related to the excess of uric acid which has accumulated and which he does not want. If the protein in the food is much reduced, these unburned portions, or uric acid, will be gathered up and utilized and the body will be cleaned out. This is the reason the empirical doctors in Switzerland, two or three centuries ago, had such wonderful success with the grape cure. Grapes contain practically no protein; so the grape cure has been from time immemorial wonderfully

successful in curing bilious people and those suffering from auto-intoxication. The peach cure and the apple cure have been just as successful. All fruits can be used as a means of protein fasting, and this sort of fasting is just as successful as complete deprivation from food, and has the advantage of being absolutely safe.

A gentleman came into my office the other day and said to me, "Doctor, I want to fast; if I can not fast here, I am going somewhere else where I can." I said, "My friend, you can fast anywhere in the world. You need not travel any distance at all to fast. That is the easiest thing to do." "All right," he said, "then I want to fast." "What do you want to fast for?" "I want to get rid of the impurities in my body, and, Doctor, I want to take a short cut. I want to get well quickly,

grown into a disordered state. It is no more possible to cure that body, to bring it back to a normal state in two weeks, than it is to raise a crop of corn in two weeks. It can not be done."

We must return to the original condition by reconstruction by growth, exactly as you raise a crop of corn by growth. It is the operation of natural law,—natural principles at work, God himself at work, and we can not hurry it. All we can do is to remove the obstacles, to co-operate and help.

Cases Might be Cited to Prove

the unfortunate results of fasting in some instances. One of our patients who left the Sanitarium in order to fast, contrary to the advice of his physician here, died at the end of a fast of twenty-seven days. Another

THE PEOPLE ONE MEETS

(Continued from page one)

tions, and all are readily formed into one great family on equal and friendly terms.

Here are managers and superintendents of large business and industrial interests; men of finance and leaders in politics. Here are the editor, the minister, and the teacher. Here are farmers, lawyers, and men of leisure. Among the ladies one meets prominent workers in philanthropy, teachers, authors, homemakers, church and temperance workers, and many wives and mothers whose sphere of usefulness is not less noble and necessary than that of those whose names are more widely known.

At this season of the year, especially, there is a large class of most excellent people



FACULTY AND STUDENTS OF THE NORMAL SCHOOL OF PHYSICAL CULTURE

and to take the shortest cut possible. If I can get well in two weeks by fasting, I am ready to do it."

"Well," said I, "suppose some one should come along and say to you, 'My friend, how would you like a thousand bushels of corn?'"

"I would like it very much. Corn is bringing a good price now."

"If I could show you how to raise a crop of corn in two weeks, how much would you give me?"

"Well, I would be willing to pay almost any price; but you can not raise a crop of corn in two weeks."

"In the same way," I replied, "no man can be cured of an old, chronic, long-standing disease in so short a time, when the body has become distorted and even grown out of shape; when the liver and kidneys have gone wrong and every organ of the body has

case, that of a bright young woman, became a nervous wreck after a fast which was undertaken to reduce her weight. Dozens of similar cases might be cited.

Long fasting is a dangerous thing. It is dangerous to tamper with these bodies of ours. When we keep within physiologic rules and principles, all is well; but when we begin to tear down the house over our heads, to set the house on fire and burn it up, we are doing violence to this beautiful edifice God has given us to dwell in.

A person who has been eating too much should begin to eat less. He should reduce the protein element of his food to a minimum, even to less than the body needs; and soon things will be balanced up. Starvation is a crude, cumbersome and clumsy way of accomplishing some little good, with the large possibility of doing a great amount of harm.

from the South. Some of these bring their families and colored nurses with them, and here in comfort spend the season that is hot and tiresome in southern latitudes.

Our family always contains those who are from beyond our national lines, nearly all parts of the world being represented here. There are missionaries who have given their lives and strength to people who sit in darkness, and are here to recover their health and strength after having lost them in unwholesome climates and under circumstances of deprivation.

None of this multitude are here for mere pleasure motives. They have left home and labor because their health is in some measure impaired, and, needing a rest, they have chosen to take it where they can receive medical help, and can at the same time learn the

(Continued on page four)

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UNIVERSITY OF MICHIGAN

The Battle Creek Idea

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VOL. III SEPTEMBER 2, 1910 No. 39

A SCARCITY OF FOOD

SOME of our shrewdest men are looking ominously into the future and wondering where the world is going to get its bread even within the next few years or perhaps months. There is a very great shortage in the wheat crop this year reported in nearly all parts of the world. The main dependence now to avert a famine condition seems to be the Argentine Republic, from whence recent word has not been received.

There are no Josephs storing up bread for a time of need with which to supply the poor. There are plenty of Shylocks ready to prey upon the public and to enrich themselves by gambling with the necessities of life, and forcing the price as high as possible. Should it prove that we are now or soon to enter upon a period of depression in business, when employment will be hard to obtain, when wages will be forced down, when prices will be forced even higher than now, then we are face to face with a serious situation. We are not predicting disaster or terrible hardship, though we can easily see how it could be brought about; but yet we are hazarding little in saying that the coming winter is sure to be a hard one for many people of limited means, and if employment should be limited, suffering is sure to come.

Our principal object is to suggest precautionary measures. "In time of peace prepare for war." In time of plenty provide for scarcity. While wages are good and employment is ready, prepare for the time of stringency. Begin now to learn how to economize. Curtail expenses in all unnecessary outlays. Study economy in every department. It is surprising to those who have lived and observed society for a third of a century to witness how far we have departed and how fast we are still departing from the manner of living that prevailed two score years ago. Plain living on the necessities of life is no longer the standard with any class except the very poor. Luxurious living is now the ideal. It is stated by the statistics that no less than 26,000 Michigan homes are now mortgaged for automobiles. In many instances the food people eat and the clothes they are wearing

are not yet paid for, and yet they are receiving good salaries, salaries which ten years ago would have seemed almost fabulous.

It was remarked in our hearing the other day by a thoughtful and wise man, "We are living over again the days of old Rome." That is a terrible thing to be true. Can it be possible that the pit of ruin which swallowed up that mighty fabric already yawns to receive us and our fair country? Let each one answer the question for himself. It is not likely that we can effect a thorough and lasting reformation of the way things are going; it seems very likely they will run their course, but as individuals we can do much to secure our own safety and that of those connected with us as far as our influence extends. The remedy is in the simple life to which this paper is committed, and which we do not cease to urge upon our readers on every occasion and from every consideration.

THE BATTLE CREEK NORMAL SCHOOL OF PHYSICAL EDUCATION

Close of the Summer Term

LAST week brought to its termination the summer term of the above school, and we present herewith a picture of the school, including the summer class and the faculty. The members of the faculty are seated in the second row, Dr. Wm. W. Hastings, the principal of the school, being seated in the center.

This term has proved quite successful, the character of the students and the quality of the instruction being first-class. On the evening of the 23d there was given in the gymnasium a gymnastic exhibition, which was largely attended by an audience quite enthusiastic in their appreciation of the very excellent work done. The following program of events was performed in a manner that showed the efficient character of the instruction:

- | | |
|----------------------|-------|
| 1. SIDE PARALLELS | MEN |
| 2. MOTOR MARCH | WOMEN |
| 3. APPARATUS WORK | MEN |
| a. Horizontal Bar | |
| b. Horse | |
| c. Parallel Bars | |
| d. Tumbling | |
| 4. COUPLE DANCES | WOMEN |
| 5. FENCING | MEN |
| 6. CAPT. JINKS' STEP | MEN |
| FINALE | |

At other times there have been held golf and tennis tournaments at which prizes were contended for and won by very creditable playing. A track meet for men was to have been held, but was necessarily postponed. It will be held at some time in the future, when the participants shall have returned from their vacations. The prizes for this event have been kindly contributed by several of the business men of the city.

The year's work begins October sixth, and promises to be very successful under the direction of Doctor Hastings, who has wide experience and eminent qualifications for such a post. A high standard is set for this school, everything that could be considered questionable is carefully eliminated, and the aim is kept on those things that promote usefulness and efficiency.

THE PEOPLE ONE MEETS

(Continued from page three)

valuable truths this institution is most ready to impart in regard to the promotion of health and efficient living. As a class they are an earnest, thoughtful and candid company of people, who desire to make the most of life and its opportunities, and are convinced, after having tried many other things, that Battle Creek Sanitarium methods and principles will do them great good now and in days to come.

THE BATTLE CREEK IDEA

(Continued from page one)

stantly on the platform as an advocate of the Battle Creek Idea, which is that of rational simple life and the physiologic method of treating the sick. As a speaker, Doctor Geisel possesses an unusual gift both in perspicuity and appeal, and is a great favorite with audiences wherever she is at all known. The season this summer was cut short one assembly by the severe illness of Doctor Geisel's mother, to whom she is now ministering.

Miss Charlotte Dancy, assistant superintendent of the nurses' training-school, has been with Doctor Geisel this summer much of the time as lecturer and demonstrator in the care of the sick. In an interview Miss Dancy gave some very interesting facts in reference to the work of the summer.

"We have attended seven Chautauquas in the last campaign," said Miss Dancy, "as follows: Streator, Ill.; Monteagle, Tenn.; Battle Creek; Miami Valley, Ind.; Pontiac, Ill.; Bay View, Mich.; Lincoln, Ill."

"What in general was the reception accorded to your work?"

"Nothing could be more cordial than the way in which Doctor Geisel and her work were received at every place by managers and by the people."

"Do you think, Miss Dancy, that the world is coming to understand and appreciate more and more the value of the principles and methods you represent?"

"There can be no question about that," was the reply; "our classes numbered on an average fully two hundred and fifty, though they were held in the forenoon, when the attendance would naturally be very small. Doctor Geisel's lectures, coming in the afternoon, were attended by thousands of people who were always delighted with what they heard."

"The interest along lines of healthful living, then, seems to be getting hold of the people at large, in your opinion?"

Miss Dancy replied, "At the close of each lecture and each demonstration, the people eagerly besieged us with hundreds of questions, and in all the intervals between our public appearances plied us with questions of a practical nature, so that we hardly found time for anything else."

"In what respect do you regard Doctor Geisel's work as different from that of other lecturers in similar lines?"

"In many ways, I should say. In the first place, it is as yet a rare thing for doctors to take the platform, and in a careful, practical way tell the people about their ailments, trace them to their causes, and in plain language tell them how to care for themselves so

as to get well and remain so. Doctor Geisel gets at once into the confidence and sympathies of the people, for they perceive that she understands her subject, and is disinterestedly telling them the very things they need to know."

"In your Chautauqua domestic science work do you represent the Sanitarium idea of diet and cookery?"

"Always and only. We frequently hear such remarks as: 'No other domestic science teachers we have had associate health problems with the science of cookery. We are told how to do fancy and attractive cookery, and the demonstration winds up with 'angel cake' or 'ambrosia'; but these people tell us how to cook in a healthful manner.'"

"Did your demonstrations attract the men?"

"Indeed, we were very much surprised and gratified to have quite a large number of men in our classes all the time. I remember one gentleman who asked in an incredulous way if we supposed that what we gave a child to eat made any difference with the child. He was a farmer, and I asked him if it made any difference with his pigs as to what he fed them. He readily said he was sure of it. 'Do you regard a force-fed pig as a healthy animal?' O, no, he did not; it was only fit to be hurried off to market at once."

"I then asked him if he thought the manner in which he fed his children made any difference with their livers and stomachs. The thought was evidently quite new to him, and he went away in a meditative mood, while others around took the hint."

"Did you have, Miss Dancy, some opportunity to do some real practical work in nursing the sick on the various grounds you visited?"

"I was often called upon to treat the sick, and on some of the encampments sickness was quite rife. I cared for a case of appendicitis for twenty-four hours before the doctor arrived and took the patient to the hospital. The appendix was found to be already gangrenous, and the doctor thought the case hopeless, but a good recovery was made."

"In many other cases we were called upon in emergency cases, and always found that the measures we used brought relief, often to the astonishment of the patient and her friends. To extend the knowledge of the principles and methods taught at the Sanitarium is to confer upon the world an inestimable blessing."

ARRIVALS

FOLLOWING is the list of guests who registered at the Battle Creek Sanitarium during the week ending August 28: Wm. J. Joyee, O.; C. J. Coates and wife, Ind.; R. F. Kay, Mich.; J. C. Sauger, Wash.; J. W. Henderson, Miss.; Mrs. Albert Stalle, Chicago; Jas. B. Whitmore and wife, Pa.; W. H. Whitmore and wife, O.; Mrs. G. R. Hamon, Mich.; R. T. Graff and wife, O.; Mrs. Robt. Keith, Mo.; Abbie Wharrows, O.; Mrs. D. B. Mitchell and Florence D. Trouts, Ky.; H. A. Eberline, Detroit; F. B. Chapman and wife, Colo.; Mrs. L. M. Copeline and Mrs. Alfred Koeh, Toledo; Mrs. R. E. Thomason and Mrs. W. O. Davis and daughter, Tex.; F. H. Craig, Miss.; Mrs. J. W. Alexander, Dr. J.



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Applicants received whenever vacancies. The next class will be organized the first of October, 1910. For full information address

Sanitarium,

Battle Creek, Mich.

SNAPS for TOURISTS

— VIA —

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Montreal, P. Q.	- \$20.00	New York, N. Y.	\$25.50
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B. Murfree, wife and daughter, Tenn.; F. M. Doan and wife, Fla.; G. L. Brewer and wife, Tex.; W. F. Weir, Ia.; S. H. Sebring, O.; Dr. J. Quint Haynes and wife, Ky.; Mr. and Mrs. Paul Linderburg and child, and L. B. Hall, O.; A. H. Goldstein and S. J. Goldstein, Indianapolis; David Gregg and wife, Tex.; C. A. Patillo, Ala.; Mrs. Ira Kinkaid, Utah; A. Senal, La.; S. C. Treadwell, Okla.; R. R. Lyons, Ia.; R. J. Glucklich, Ill.; C. F. Shaw and J. S. Shaw, Ky.; Stephen C. Brogan, N. C.; Louise Beecher, Tenn.; W. T. Anderson and wife, and W. J. Bickerstaff and wife, Pa.; C. J. O'Maley and wife, Tex.; Chester Ray and Mrs. John Ray, Ia.; L. Langfelder, Ark.; W. F. Memmler, Chicago; Frank Kleeminger, Chicago; Horace Brown, Ky.; M. R. Williamson and wife, Okla.; Mrs. L. E. Lambert, Pa.; Rev. Riley Hubbard, Ill.; Mrs. W. H. Hines, Chicago; Mr. and Mrs. O. B. Thorp, Ill.; Frank H. Marshall, N. Y.; E. Radabaugh, O.; F. C. Huss, S. Dak.; Geo. E. Kanney, Mich.; C. E. Dobson, Cal.; Dr. M. M. Acker, O.; B. F. Guffin, Mich.; Geo. D. Mansfield and wife, Milwaukee; Rev. W. J. Glucklich, Ill.; Roy Metzger, Indianapolis; H. S. Renkert, O.; Wm. Lohmyer, Sr. and Jr., W. Va.; L. C. Edwards, Pittsburg; Richard T. Wyche, New York City; Hannah J. Saylor, Ind.; M. V. Schubert, Tex.; C. H. Rankin, N. Mex.; Dorothea Boos, New York City; John C. Pierce, wife and son, Tex.; Mrs. Thos. D. Boyd, La.; Mrs. W. O. Halstead, Ind.; A. B. Belding, Ark.; Dr. L. H. Cook and wife, Ind.; Mrs. Sue S. McKelvey, Tex.; Mrs. Will L. Clark, Ariz.; Mrs. Emma Durr, Ia.; John C. Penn and wife, Tex.; W. C. Westover, Toledo; Mrs. F. B. Chapman, O.; Mrs. E. J. Carpenter, Ind.; Mrs. John D. Hamilton, Pa.; Wm. J. Gregg, Mich.; Mr. and Mrs. John F. Brown and Miss Florence Brown, Philadelphia; P. C. McGowen, Mich.; Mrs. C. A. Dewey, Ill.; H. R. Moore, L. B. Moore and wife, and Miss Luella J. Moore, Mrs. H. H. Cummings, and Mrs. E. C. Sturgis and child, Texas; Mrs. D. W. Karraker and son, Ill.; S. M. Sewell, Tex.; Geo. M. Fulton and Georgia A. Fulton, Ill.; Mrs. Paul L. Turner, Ind.; Mrs. N. F. Van Lean, Eld. E. J. Van Horn and A. J. Bartlett, O.; L. H. Barry, W. H. and P. H. Barry, Ark.; Y. Allen Holman, Ala.; Aaron Rothschild and wife, Ind.; Mrs. Bessie B. DeMenil, Mo.; J. A. Pharr, wife and child, La.; N. W. Paulson, and Wiley and Mary Pleasant, Ill.; Jacob Strickler, Jas. L. Neel, O.; John Calahan, New York City; H. L. Lilins and wife, Miss.; Mr. and Mrs. S. S. McClure, New York City; Ben Williamson and Master Ben Williamson, Ky.; Mrs. A. L. Moser and Miss Jennie B. Moser, Pa.; H. R. McMurtrie and wife, Mo.; Wilson J. Northeross, Tenn.; Cecil Kellogg, Denver; Mrs. E. Nast, New York City; Mr. and Vienna Detwiler, Md.; G. S. Furbee, W. Va.; Mrs. A. F. Clafin, Pittsburg; Gertrude Munroe, Mich.; J. T. Palmatary, Va.; J. E. Britt, S. C.; A. C. Wood and wife, Ont.; John P. Shiells and wife, Wis.; Mrs. S. J. Sayce, Ala.; Edw. R. Meek, Dallas; Edw. Vail, O.; D. J. Hopkins and wife, and J. M. Smith and wife, Mich.; J. W. Vail, O.; Thos. F. Washburn, N. J.; F. F. Fletcher and wife, Mont.; I. H. Hamm, Okla.; J. C. Hundley and wife, Ill.; K. G. Lindwall, Chicago.

News and Personals

Mr. and Mrs. C. J. O'Maley, of Denison, Texas, have returned to the Sanitarium for further rest and treatment.

Rev. W. F. Anderson and wife, returned missionaries from India, are taking much-needed rest at the Sanitarium.

Dr. M. M. Acker, of Fayette, Ohio, and Dr. L. H. Cook and wife, of Bluffton, Ind., registered with us last week.

There are now with us about a dozen of the citizens of Denison, Texas, an indication not that Denison is a sickly town, but that its people are wide awake and up-to-date, and know a good thing when they see it.

Rev. Jonathan Bastow, D. D., Baptist pastor of New York City, presented to a large audience assembled in the Sanitarium parlor

on Sunday evening, a most comforting and helpful address on "The Uses of Suffering, and the Way to Appropriate it to the best Advantage."

Arrangements have been made with the Children's Hospital of Detroit by which the pupils of the Sanitarium Training-school for Nurses are to receive a period of experience in that institution, thus amply supplying any possible deficiency in our nurses' course. The first students to take advantage of this arrangement are Mrs. Hattie M. Knapp and Miss Winifred Way. Others will be going later.

Prof. L. B. Hall, of Oberlin College, professor of English and American history in that institution, is visiting his brother, Thos. A. Hall, of Chicago, who with his family is spending the summer here. Both these gentlemen speak very kindly and appreciatively of their impressions of the work that is being done at the Sanitarium. Mr. Hall has been prominent and useful in the work of the

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— VIA —

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SEPTEMBER 4, 1910

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Presbyterian church in missionary and other lines.

Among our prominent guests at the present time is the famous Admiral Hunker, who is now on the retired list after many years of faithful service to his country. The Admiral seems to feel wholly at home here at the Sanitarium, and although he has followed the sea life so long that he declares himself to be almost web-footed, he nevertheless takes kindly to the Sanitarium fare and is rejoicing in the rejuvenating process which he sees going on day by day.

Mr. Grief, the manager of one of two largest sugar-making plants in the world, located in Porto Rico, is making the Battle Creek Sanitarium his headquarters this summer. Mrs. Grief and her daughter, the grandchildren and a daughter-in-law are patients here. The sick ones are making such rapid progress that they are all expecting soon to take a long touring trip in Mr. Grief's fine new Packard automobile which is destined to be the means of many delightful trips over the military roads of Porto Rico.

Doctor Murfree, of Murfreesboro, Tenn., and his wife and daughter are guests and patients at the Sanitarium and report themselves as making excellent progress. Doctor Murfree at the advanced age of 74 years is still active in his profession, which he has practiced for more than half a century and in which he has attained distinction as one of the leading physicians of the South. Doctor Murfree has for years been sending patients to the Battle Creek Sanitarium and is a warm advocate of the rational principles

which form the basis of the Battle Creek Sanitarium System.

The Sanitarium faculty has recently received important reinforcement in the person of Prof. Ralph E. Myers, B. S., from Yale University. Professor Myers since graduating from the Sheffield Scientific School, the science department of Yale University, has acted as assistant to Professor Mendel, director of the Sheffield School, and comes to us very highly recommended as an expert in physiologic chemistry and in research work. Professor Myers will have charge of the Sanitarium research laboratories, and is already beginning several im-

portant lines of research the results of which it is believed will be of service in settling some of the points relating to human nutrition which are still under discussion.

Mr. John Callahan, superintendent of the Bowery Mission in New York City, successor to Col. S. H. Hadley and Jerry McCauley, spent a couple of days with us last week. Mr. Callahan is an old friend of the Sanitarium, whose visits are always welcome. On Sabbath morning he gave a most interesting account of the work in which he is engaged in the slums of New York. One feature of his work is the dispensing of a free supper

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Battle Creek, Michigan.

to hungry men on Saturday evening. About 250,000 men have been fed during the past year in this way, and 150,000 men have attended the services, many of whom have been induced to adopt the better life. Mr. Callahan was called home unexpectedly and was not able to fill his last appointment with us.

The outdoor gymnasium is a lively place these summer days. Of the many hundreds of guests which throng the Sanitarium at the present time, some hundreds daily find their way to the outdoor gymnasium, where they spend from half an hour to an hour or two, divested of as much clothing as modesty will permit, getting tanned by exposure to the sunshine, sporting in the big swimming pool, or reeling in the soft, white sand-pile, trotting around the running track, exercising in various ways and otherwise entertaining themselves. There is no department of the institution which is more appreciated by the guests than the outdoor gymnasium, where one can get as close to nature as is possible among civilized folks.

Among the notable visitors who have recently been entertained at the Sanitarium should be mentioned Mr. Julius H. Parmelee, an expert statistician connected with the Census Bureau at Washington, who has undertaken a statistical study of the mortality and morbidity of the large number of persons connected with the Battle Creek Sanitarium in various capacities who have for many years been following the low-protein dietary. This study will cover a period of ten years and ought to yield results of value either for or against the low-protein standard in diet. The study will be conducted in such a way as to leave no room for doubt as to the validity of the conclusions reached, no matter what they may be. The result of this statistical research will be awaited with much interest.

At least once or twice a week the guests of the Sanitarium are favored with a real musical treat by Drever's Orchestra, which has come to be one of the features of the institution. That Mr. Drever possesses rare talent, not only as an artist himself on many different instruments, but as an orchestral director, no one can doubt who has ever listened to one of these concerts. A small concert is also held in the dining-room every day during the dinner hour, much to the delight of the hundreds who fill the great dining-room. Pawlow's experiments showed that music aids digestion by promoting the flow of the digestive juices. The orchestral balcony recently put in over the main stairway not only improves the appearance of the great dining-room, but also enhances the effect of the musical harmonies poured forth by Mr. Drever's artists.

We are happy to see again among our guests the genial face of Mr. N. P. Clark, of St. Cloud, Minn. Mr. Clark is well known throughout the Northwest as a pioneer, and especially for the gigantic lumbering enterprises which he carried on in the earlier days. Mr. Clark first came to the institution about twenty-five years ago when he was completely broken down in health, and he claims that he owes his life and activity dur-

ing the last quarter of a century to the advantages gained by following the rational principles of living which are here taught. Mrs. Clark, who has also been a frequent guest with us, is enjoying almost robust health, notwithstanding the great hardships through which she has passed during her more than seventy years of life. We are always glad to meet these old friends of the Battle Creek Idea, and to note the great profit which they have gained by closely adhering to Battle Creek ideas.

Mr. S. S. McClure, the well-known publisher and publicist, editor and proprietor of *McClure's Magazine*, is a guest of the Sanitarium with his wife, Mrs. McClure's sister, and his little adopted son. Mr. McClure is a most enthusiastic supporter of the low-protein idea, and of the physiologic principles which are the basis of the Battle Creek Sanitarium system. Mr. McClure has recently returned from Europe, where he visited the leading cures and health resorts. In an address to the patients of the Battle Creek Sanitarium on Monday night, Mr. McClure stated that he had no hesitation in saying that at Battle Creek could be found more advantages for the health-seeker and for less money than at any other place in the world. Mr. McClure declared that he had himself received tremendous advantage from the adoption of the low-protein idea and natural modes of living with which he had become familiar through consultation with the eminent Doctor Combe of Lausanne, and several visits to the Battle Creek Sanitarium.

We recently had a most delightful visit from Col. Joseph H. Strong, of Chicago, well known in life insurance circles, and for several years civil administrator of Cook county. Mr. Strong's visit was for the purpose of making the acquaintance of the institution and getting Mrs. Strong settled as a patient. When asked how he happened to

come to the institution, he said, "Why, I have been drinking your Postum for years." Imagine his surprise when he discovered that Postum is not the Battle Creek Sanitarium cereal beverage which bears the name of Caramel Cereal. He said, "Giving up coffee has done me so much good that I called upon a friend of mine who had been here at Battle Creek some weeks ago to inquire about the place. He told me that he was quite broken down when he came here, but after three or four weeks found himself so wonderfully rejuvenated that he had his wife visit the institution and learn all about how to live according to the Battle Creek Sanitarium method, and he said, 'When we got home we simply emptied our house of all the old rubbish that we had been accustomed to eat and began living on a new plan, and we are simply delighted. We are both of us so much better in health and feel so much better in every way that we can hardly recognize ourselves.' Now," said he, "Mr. Strong, you just take your wife up to Battle Creek and tell her to obey orders and to attend all the lectures and demonstrations and learn how to live. She will get better, and then when she gets better she must keep right on living the same way, and then she will keep well." So," says Mr. Strong, "I followed his advice, and now I want you to put my wife through a good, thorough course of treatment and instruction, so that when she gets well she will remain well." The physicians in charge of Mrs. Strong are glad to be able to give the strongest encouragement of complete and speedy restoration to health. We hope to have frequent visits from our genial friend, who seems to carry with him a veritable burst of sunshine, which is always acceptable at the Battle Creek Sanitarium.

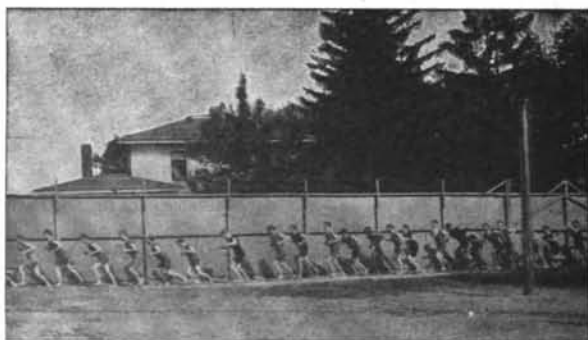
See "Dutch" play ball Sunday, Sept. 4th, at Detroit. The Grand Trunk excursion leaves at 6:10 A. M. Fare for the round trip, \$1.75.

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For full particulars address:

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THE BATTLE CREEK IDEA

Vol. III No. 40

BATTLE CREEK, MICH., SEPTEMBER 9, 1910

Price 2 Cents

OBSERVATIONS AND CONCLUSIONS

Gathered by Mr. S. S. McClure in Recent Travels, and Stated in a Parlor Lecture

MR. S. S. McCLURE, the well-known editor, publisher and philanthropist, is spending a few days at the Sanitarium. Being

ANTITOXIC REGIME REFORM IN LIVING

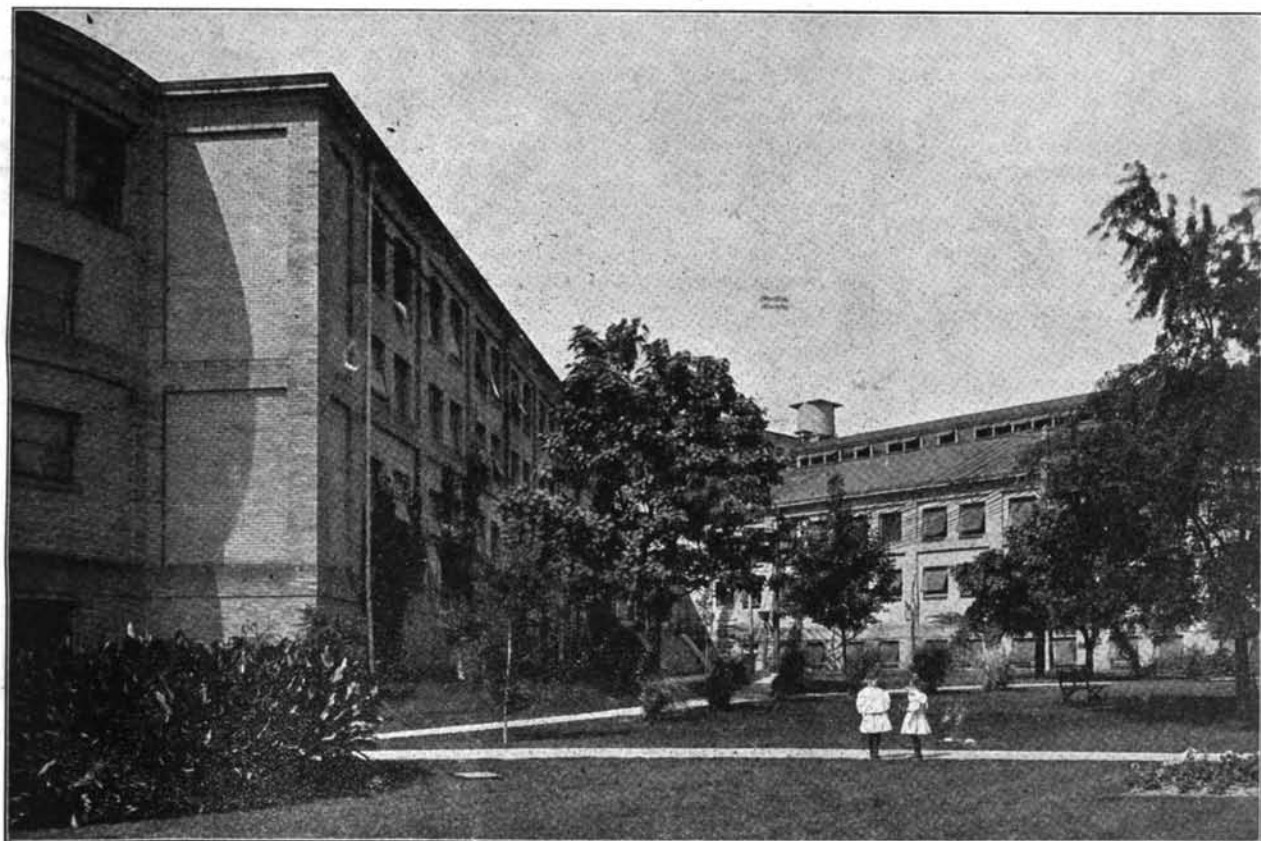
Dr. J. H. Kellogg Follows Mr. McClure's Remarks with an Exposition of the Battle Creek Idea

THE Battle Creek Idea is not an invention nor a discovery. It has long been growing in the world, and it has been growing because the

had it not been for his pioneer work in grouping together the methods which he found in use among the peasantry. The wet-sheet pack was used among the peasants of Germany and Austria two hundred years ago, as well as various other means used at present, such as shower baths, douches, etc.—these were all in use in the Middle Ages, among the peasantry of Europe. The strange thing is that the medical profession, the

Scientific Men Have Been so Slow

to get hold of these important modes of natural cure, and to make a practical applica-



A REAR VIEW OF THE SANITARIUM

present at a parlor lecture, he was introduced by Doctor Kellogg, and gave in a few words the impressions he had gained during a recent visit to Europe upon matters relating to health. Mr. McClure spoke in a very appreciative way of the Sanitarium and its facilities and the character of its work, and in so doing, naturally made some comparisons be-

(Continued on page four)

time for it had come. The world was going downhill so fast that we had to have something to keep up from extinction. I do not know what would have happened to the race, I do not know where we should have been if it had not been for the reforms that were introduced one hundred years ago by Priessnitz, who had a little water-cure away up in the hills of Graefenburg in Austrian Silesia; and

tion of them. But the time has come when it is being done. Winternitz, of Vienna, for forty years has been making a scientific study of water treatment, and through his pioneer work these principles are spreading throughout Europe. And Brieger, at the present time a professor in the Imperial Medical School of Berlin, is a student of Winternitz, and he has introduced water into the great

UNIVERSITY OF MICHIGAN

Berlin University, and lectures upon hydrotherapy, light, electricity, exercise, massage, and all these various methods of treatment, and all these various methods of treatment. And through the work of Pawlow of St. Petersburg, Cannon of Harvard, Combe of Lausanne, and numerous other workers, the principles of dietetics have gradually been developed.

Here at Battle Creek we have been using hydrotherapy and the low-protein diet for forty years or more. I was convinced of the benefit of discarding meat forty-five years ago. The idea appealed to me as being good. Professor Fisher asked me one day, "Doctor, how did you get hold of these ideas so long ago, before scientific facts were sufficiently numerous to furnish a real scientific foundation for this low-protein dietary?" I said, "I adopted the non-meat diet because I liked the flavor of the idea, though we did not know the scientific arguments then that we know now." If you analyze your own state of mind and your own attitude toward new ideas that are presented to you, you will see that it is not argument that persuades you of the truth of a thing. We do not know truth by an argument; it is by conviction. We have an instinct which enables us to tell what is true, and what is false as well.

I Was Convicted,

if you please, by reading some words of Cuvier, the great French naturalist. He said that the natural diet of man is the same as that of the monkey. Man has teeth like the monkey, he has muscles and bones like the monkey; his physical structure is so nearly like the monkey that it is practically impossible to tell a very young ape from a very young child. It requires an expert to distinguish the skull of a very young ape from the skull of a very young human being, and the whole structure of their bodies is wonderfully alike. So, the structure and the functions being so nearly alike, he argued that the diet is naturally the same—a diet of fruits, nuts, and soft grains. I said, "I will try the experiment for myself. I am just one person, and it will not be a very serious matter; and I will see how it works." And for twenty years I was looking to see if I could find any flaw in Cuvier's proposition. But for the last twenty years I have not had a particle of doubt, and it has been a very great comfort and encouragement to see the scientific world coming so rapidly to the low-protein idea. Professor Chittenden's wonderful work at Yale has had a great deal to do in convincing medical men of the importance of the low-protein idea.

My experience has been that

People Who Adopt This Low-Protein Dietary and Adhere to It Are Absolutely Certain to Be Helped by It,

other things being equal. And year by year they find themselves rising higher and higher in endurance and efficiency and general well-being. Some of you remember that about a year ago now we had a visit from Mr. Goodwin Brown, a prominent lawyer in New York. Mr. Brown came here to inspect our work. He was a meat-eater, but had learned to fletcherize his food, and was a very earnest disciple of Horace Fletcher, though he had

never seen the necessity for leaving off meat. He felt greatly helped as a result of fletcherizing, and some of you will remember possibly that he gave in his room an account of his experience. A report of his remarks was published in the BATTLE CREEK IDEA, and the other day he saw the publication and asked to have several hundred reprints of these remarks. "Be sure to put the date on," he wrote, "because I have improved so much since that time, for I came home and stopped the use of meat, and of coffee entirely, and I have made such a wonderful improvement that I want the date put on. I am having reprints made because so many people have noticed the great improvement in me, and want to know why, and it will save my writing so many letters."

This is a Common Experience.

Three years ago we had a visit from a prominent business man of St. Louis. He came here pretty well broken down, but in four or five weeks he became accustomed to the meatless diet, and sent for his wife to come and bring the children along so they all could get initiated. They went home and adopted the dietary of the Sanitarium; and when he dropped in here the other day I really did not know him; he was so changed. He is brimful of energy and vim. I asked him if he was adhering to the low-protein diet and Sanitarium ideas of living, and he said, "Indeed I am; why, getting hold of these principles has been a great business asset to me." He sent up one of his leading managers to get him converted. And I might mention a great number of similar instances.

An interesting case was a gentleman from Oklahoma, who was here last year and was brought here on a bed, and looked as though he was dead. His blood had gone down until his hemoglobin was only sixteen per cent. He could not raise his head without fainting away. It looked as though there was not the smallest hope for him. Did we send out and get some scraped beef, and beef juice, and beef-tea, and all that sort of thing? Not a particle of anything of that sort did he have; but he was brought up on this low-protein dietary, and the other day he came back to show us how well he is; and he is just the picture of health. His hemoglobin was eighty-six, and he raised it up a few points more and went home, feeling tiptop; but it certainly looked as though he was likely to attend a funeral pretty soon when he arrived here a year ago.

Such a case presented at the door of almost any hospital, would, I am sure, have been pronounced an incurable case of pernicious anemia. It was chiefly the diet that cured that man. When he was being fed on a meat diet, he was continually eating the thing that made him sick. Professor Welch, of Johns Hopkins University, and Professor Herter, of New York, have shown that almost every specimen of meat you can get contains certain bacteria, which, when they grow, produce a poison that when it is absorbed into the blood is capable of dissolving and destroying the blood. It is called Welch's bacillus; and Professor Herter experimented with this particular bacillus and found that when he added it to the blood it dissolved the corpuscles and destroyed them.

What the Man Who Has Anemia Needs

is not always the making of more blood. He is making blood enough, but he can not keep it after it is made. What he wants is to stop the destruction of the blood; that is the thing that is necessary, and this is accomplished by clearing out the bacteria which are infesting the alimentary canal, and which are destroying the vital fluid of his body. So that is the all-important thing. The old idea that meat was necessary to make blood is thoroughly exploded. It is the very thing that destroys blood. I might mention this as an illustration of what Mr. McClure was saying a moment ago. Scientific men of Europe, by their own laboratory researches and clinical experience, have come to these same conclusions. They are coming to recognize it. One of my colleagues was present at a lecture by Doctor Strauss, one of the most eminent physicians of Germany, physician to the Emperor, and a man was brought in who was suffering from pernicious anemia, and the doctor said, "Gentlemen, you see this patient has pernicious anemia. Now, what shall we do for him? We will simply put him upon a vegetarian diet, and he will get well. Now, I do not know why; I can not tell you the reason why, but I know it is so, that if we put him on a strict vegetarian diet he will get well." Sure enough, he did. Now, Professor Herter, of New York, an eminent bacteriologist, has shown the reason why. So you see here is a remarkable confirmation of the practical results we have been getting here for the last thirty years.

I remember that about twenty-five years ago I wrote to a professor of medicine, with whom I was well acquainted, that we had

A Case of Pernicious Anemia

here, but the man was almost well. His blood had been down to twenty but he got well, and went home with his hemoglobin 100 per cent. The professor wrote back that he might be better for a little while, but he would die pretty soon. I am sorry to say that he did die. He went back to his meat-eating and his old habits, and in six months he was dead. Several other cases I reported to him about the same time are all alive to-day. These cases were considered incurable, and they were, under the old idea that meat was necessary to make blood, for the more meat they ate, the worse off they were. We have come to the point where we know perfectly, and scientifically, not empirically, that meat is absolutely unnecessary as a food for human beings; that we can not only get along without it, but we can get along a great deal better without it than with it, and I was very glad to hear Mr. McClure say here to-night that in traveling throughout Europe he had found that scientific men generally were discarding flesh food. They have tried this drug and that drug, and the other drug to cure various things, and now are finding that the meat diet and the auto-intoxication which results from it, the putrefactive processes that are going on in the intestine continually and throwing poisons into the body in great quantities, is the great cause of chronic disease, and is responsible for more chronic diseases, probably, than any other one thing.

Increase of Insanity

I was reading to-day an article sent to me, by an eminent Eastern physician, on the increase of insanity. Attention was called to the fact that in the City of New York at the present time, one person in every 334 is shut up in an insane asylum. And the writer quoted other authorities besides himself that for every person that is shut up in the insane asylum there is another one outside that has not yet been caught; so that the number of insane people in the City of New York to-day is about one in every 150. When one reads the newspapers, especially during the political campaigns, he is inclined to think there are more than that.

What is the cause of this? It has been shown very clearly that the increase of insanity has gone right along with the increase of city population. And we know that alcohol has a good deal to do with it, and dissipation has a good deal to do with it; about half of these cases of insanity are accounted for by dissipation and diseases that result from dissipation; but there is another half not accounted for, and for this half, I am satisfied that flesh-eating is very largely responsible. It is especially noticeable that within recent times there has been a great increase in the number of cases of paresis, or general paralysis, in which there is a degeneration of the brain, the most hopeless and absolutely incurable form of insanity. That is a disease which comes on sometimes in very old age as the result of senility; and Metchnikoff has shown that these senile changes are the result of poisons circulating in the blood; and those poisons are absorbed from the colon.

Now, we know that

The Great Cause of These Dangerous Germs

in the colon, these poison-forming germs, is flesh. You can not find such a thing as a morsel of meat that has not germs in it, unless you kill the animal and cut off a piece of warm, quivering flesh and eat it in that shape. Anywhere from 100 to 500 or 600 millions are the number of germs to be found in every morsel of meat you eat. These are the germs that cause putrefaction. Let them grow a while, and the meat will be putrescent. That is why it is tender. When an animal dies and *rigor mortis* occurs, the flesh becomes tough and leathery, and it never becomes tender again until it decays. It is tender because a process of decay has been set up. And those germs taken into the alimentary canal fill the intestine with these putrefactive agents, so that every little fragment of food that is not in itself putrescible finds there those agents in very great numbers, and they seize upon it and destroy it, and thus even the protein of vegetables is converted into poisons, and these poisons absorbed into the blood produce a vast amount of mischief.

We see people wearing upon their very faces evidence of autointoxication, for example, that brown discoloration of the skin. You used to have a fine, clear complexion, roses on your cheeks, and a nice, clear skin. Why haven't you such a skin now? Because your skin is dirty, and the dirt is more than skin deep. It is not on the surface of the skin. It is in the skin, and it is not only in the skin, but it is all through the body.

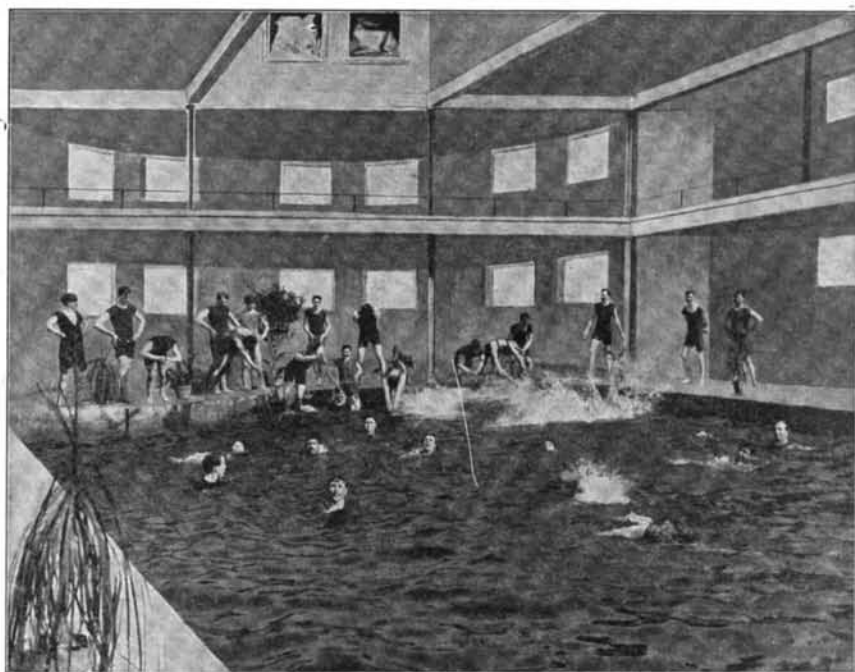
Some time ago we had

A Visit from Mr. Jacob Riis.

He looked about the place, and just before he left, he said, "Doctor, you know I have changed my mind since I came here. When I came and looked about among your workers I thought your people looked anemic, and I was afraid they did not have beefsteak enough; they looked pale; but after I got a little more acquainted and looked closer, I saw that I was mistaken; it is a clean look." I was very much pleased to see he had changed his mind and had a reason for it. It is a clean look, because a clean diet builds a clean body, makes clean blood, and when the blood gets clean it gets back its old vigor, and its old vitality, and its old healing power. You know the old prophet, Moses, said, "The life is in the blood," and this life in the blood

was in despair because she thought she had committed some unpardonable sin; it must be so, she said, because she suffered so, and she knew God would not afflict her in that way and punish her so unless she had done some unpardonable thing. I looked at her tongue and told her that her case was a case of total indigestion and not of total depravity, as she thought, and the thing she had to do was to get her tongue clean, and she would feel different; so she did.

I go into the operating room, and cut people up, and if they were left where I leave them there would not be the slightest hope of one of them getting well; and I am glad that there is a Power that can create; that there is a healing Power that can bind up those wounds. If it was not for



ONE OF THE INDOOR SWIMMING-POOLS WHERE SWIMMING CONTESTS AND AQUATIC SPORTS ARE CONDUCTED DURING THE WINTER

is the thing that heals. As my friend Professor Winternitz has said with much emphasis that the healing power is in the blood. "It is the blood that heals." "It is the blood that creates."

You cut a little gash in your flesh, and it at once fills up with blood. Now, if you could put that under the microscope, you would see that the blood-clot was made up of minute threads and fibers running all through it, and on each little fiber you would see the white blood cells creeping out and beginning to build a false work to bridge that chasm over, and that is what those fibrils are for; the blood that is put out there serves to feed the blood cells that creep out to build a bridge over the cut.

The Greatest Principle We Have in This Institution

is that the healing power is in the man, and it is the same Power that made him. The same power that made the man in the beginning, that same Power is with him now.

I met a poor woman the other day who

that, I would never dare do a surgical operation again as long as I live. So I say to you, my friends, the best and the quickest way to health is just to get in line, get into harmony with the great Power that made us.

Now, Mr. McClure spoke a little while ago of the small pay we get for our work. He is entirely mistaken.

We Get the Biggest Kind of Pay.

When somebody comes into my office just before he goes home—he came here poor, cadaverous looking, with leathery skin, with tottering step, and a feeble voice, and said, "Doctor, can you help me?" And I say, "Yes, there is help for you; I can not cure you, but there is a Power that can cure you; there are principles that will help you;" and when the patient comes again after a few weeks to say good-bye, and I see his clear skin, blooming cheeks, bright eyes, springy step, and cheerful voice,—as he says, "I am so thankful for the good I have received here, and I want to thank you for what you have done,"

(Continued on page four)

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DENTISTS VS. DOCTORS

We have always been led to believe that the dentist was at least a close relative of the physician, and that his art was an adjunct to good health and good living, though no one was ever known to visit a dentist on professional business for pleasurable diversion. But we have been told many times that a good set of teeth is one of the conditions of good chewing, and that good chewing is one of the essential conditions of good health. We still adhere to these early impressions, and yet here is a doctor who would fain discount the good that the dentist does to humanity after all. The dentist may be all right, and his intentions are good; but his work is perverted to bad uses, and good teeth after a certain age has been reached are likely to be a source of evil rather than of good, according to a writer in *The Independent*, as quoted by the *Literary Digest* of September 3. As pointed out by this writer, Dr. J. C. Bayles:

"The re-equipment of the mouth with porcelain substitutes is, for most people who are thus repaired, a practical rejuvenation. Primarily, they are greatly improved in appearance. The hollows in the cheeks are filled out, the mouth closes only as far as it should, and ugly gaps are made sightly. Nine in ten of those he meets are frank enough to say, 'Why, you look ten years younger.' ... Among other agreeable sensations, the possessor of a new set of artificial teeth that fit fairly well rejoices in the conviction that he 'can eat anything'—which may ordinarily be interpreted to mean that, as opportunity offers, he will eat everything. Then the trouble begins. The appetites of youth assert themselves and may again be indulged. Strong meats which, without teeth, could be eaten only when stewed soft or minced, once more appeal as substantial steaks and generous roasts, and are relished the more because of the long deprivation, recalled with impatience. People thus rejuvenated are very apt to eat a great deal too much and to include in their dietary many things they had better avoid. As a rule, the evil effects of such excesses are not immediately observed. The first symptom of overfeeding is likely to be stimulation. The victim of self-indulgence thinks he is building up his body and brain by a generous diet; as a matter of fact (he is raising his steam pressure with the safety-valve locked, congesting his fire-pot with ob-

structive clinkers, and banking ashes up to the grate-bars. That he 'never felt better in his life' is possibly true; but he probably does not know that every competent physician would recognize in the steady gain in his waist measure a danger signal of the most alarming kind."

The writer follows these statements with cogent reasoning and patent truths concerning the care of the health during the decline of life, and later on says:

"Even for one in as good health as is possible after fifty or fifty-five, very little meat is needed, and it should be in a form imposing least effort in mastication and assimilation. Milk and eggs are the best of the animal foods. With the decline of physical and mental activity which characterizes declining years, there is a decreasing demand for what are deemed 'hearty foods.' It does not follow, however, that the *desire* for improper and too abundant foods ceases when they become dangerous, or that years always bring wisdom in matters of diet. ... That artificial teeth favor such imprudence is undoubtedly true, and the conclusion is indicated that new teeth in old mouths are like the new wine in old bottles of the parable."

This writer evidently concludes that the decay of the teeth at or before the age of fifty is a providential safeguard against overeating. Not the teeth, but the bad use of them, is the source of danger. That there is matter here for sober reflection there is not the slightest doubt. The part of wisdom would not be the banishment of the dentist, but the proper restriction of the appetite, so that the aged may enjoy the benefits and pleasures of good teeth, and at the same time avoid the very serious dangers that beset the gratification of the appetite at a period when even common sense would indicate that with the decline of activity there should be a corresponding restriction of food. Had the writer said that after the period of time indicated no meat at all is needed he would have stated a truth that many sensible people are discovering for themselves.

Our counsel would be that the dentist be encouraged to go on in his good work, and that aged people be admonished to be temperate and careful in following out the indications of nature so clearly staring them in the face.

ANTITOXIC REGIME

(Continued from page three)

I want to say to you, that is big pay. And as I stand here I see faces that a little while ago were pictures of disease, and to-day I see health blossoming out. I am glad I am here. I want to tell you it pays, it pays to be connected with principles that are so mighty, that have healing power in them; and I hope that while here you will get so inoculated with these principles of right living that when you go home you will be missionaries and tell your friends about these good things.

OBSERVATIONS & CONCLUSIONS

(Continued from page one)

tween this institution and those he saw in the Old World.

These observations were made, not to disparage the work that is being done there, but to emphasize the work that is being done here. And we present his remarks to our readers for their encouragement and edification, and not for any purpose of reflecting upon what others are doing so nobly under conditions not so favorable as those that favor our work.

Mr. McClure Said:

I am not here to-night to make the address of the evening, as some have evidently supposed, and shall occupy but a few minutes with what I have to say. This is Doctor Kellogg's hour, and I would not deprive you of your privilege of hearing him. I have it in mind to bring up a few comparisons between the various "cures" I have seen in Europe and what we have here. Almost all the celebrated health resorts in Europe are based upon the use of water as a curative agent, as is the case at this institution to a certain extent. And for the purpose of administering their work they have invented many methods and much apparatus. But at none of these places, be it Carlsbad, Kissingen, Homburg, or Weisbaden, will one find so complete and perfect an outfit for the administration of hydrotherapy as he will find in the Battle Creek Sanitarium. I observed that the recent idea of exposing the naked body to the rays of the sun and to the free air is carried out quite extensively in the Old World, but the same thing is practiced here, and this is almost the only place in this country where it is done.

The idea of curing disease by the proper selection and preparation of the diet also prevails quite extensively in Europe, but the real scientific application of the diet cure originated here, and has been carried out more completely and successfully in this institution than at any other place.

For ten or fifteen years a very distinguished physician in Switzerland has been

Curing Disease by Means of the Diet,

and his practice is attracting people from all parts of the world. In that city there are several large hotels which undertake to carry out the prescriptions of the doctor. The doctor prescribes what his patient shall eat, and the patient takes his prescription to the hotel and has the food cooked and served.

But in this Sanitarium the same thing is done, only that the entire work is done directly under the doctor's supervision. It is only a natural consequence of such a system as that, that there should be failures and mistakes in carrying out the doctor's directions. In this place we find that the selection of the food, its preparation and serving are all done as part and parcel of the doctor's work in prescribing, and are conducted under his supervision, so the chance for failure or mistake is pretty well eliminated. There the prescribing is scientific, but the carrying out of the prescription is left in unscientific hands. Here the cooking and serving are as scientifically done as is the prescribing. The phy-

sician to whom I am alluding is a celebrated authority on diet and auto-intoxication, and is known throughout the world, but his facilities for carrying out his work do not compare with what we find here.

As a Sort of Universal Spy

in my calling I have spent perhaps half of my time during the past twelve years in Europe, and have spent several months at each of the celebrated baths for the benefit of my wife's and my own health. During the past few years I could not avoid the observation that there was an extraordinary development of the Battle Creek Idea going on in all those places. Not that they realize that they are copying things; they imagine that they, themselves, are the originators. The avoidance of meat is becoming a very prominent measure with them.

After trying Carlsbad and other places for rheumatism, my wife went to Algiers, and there the doctor at the first step cut off the use of meat, and she was helped greatly as the result. I confess that when I first heard of this idea I considered it the notion of a crank, a fad of Doctor Kellogg's, but I have since found out that the most prominent doctors of Europe are adopting it, as are the foremost places where disease is being cured.

I could just as well spend my time at some of those famous cures as to spend it here, but I find that this is the most advantageous place in which to seek for the treasure of lost health and strength. The system is more perfect, the facilities are more complete, and while in Europe you may find one specialty in this place, and another in some other place, here we find a great assemblage of all the most modern and scientific measures and methods for treating the sick. Whatever one can find in Europe that is really good may be found here reduced to a thoroughly scientific basis and efficiently administered. I find it good and profitable to come to Battle Creek, because I find here more and better things than I can find at any one place in Europe; and

For a Great Deal Less Money.

And, speaking about this last matter, that of the cost, which is vital to many people, permit me to say in the kindest manner, and I say it on my own initiative, without suggestion, that after investigation I am convinced that in this institution, where things are made as comfortable as they could well be made, there are but few guests who actually pay the real cost of their entertainment and treatment. The actual cost of caring for a patient here, on the average, aside from medical attendance, is not less than twenty-four dollars per week. Many are here who do not pay more than that. The way in which this is made possible is that there are here a large body of men and women who give their services for a part of what they are really worth. Not one of these people receive a dollar of profit from the business; they have no perquisites or graft, and receive nothing but their modest salaries. Thus the institution is enabled to go on and pay annually something on its indebtedness with the hope of some day being able to devote much more of its income than now to enable the world to have more of its benefits.

It is on account of this spirit that I be-



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lieve that the invalid can here get more for his outlay that will be of firm and lasting value in health and strength and in the restoration of his energy than in any other place.

Money is Not the Aim

No man having the making of money uppermost in his mind would ever construct and equip such a place as this. It is not based on that conception. Its aim is to assemble here all the best methods and appliances for making people better in health and better in soul, and to show them how to live, not simply for the few days they are here, but all their lives, that they may be happier and more useful.

And although this Sanitarium has for many years stood in advance of the world in these things, I can say without fear of contradiction, and from what I have seen, that the great investigators in the Old World, in their laboratories, and in their practice, have developed and are bringing to the recognition of the people almost every single principle that has been put into operation in this Sanitarium.

ARRIVALS

THE following names appear on the Sanitarium register for the week ending Sept. 4, 1910: Dr. N. de Pertes, Italy; Schuyler Campbell, N. J.; Mrs. A. G. Reynolds, O.; Dr. E. L. M. Bristol, Detroit; Mabel Long, Ia.; R. F. King, Mich.; Miss Susie E. Fear, Mich.; Mrs. J. H. Strong, Chicago; Mr. and Mrs. G. P. Hall, Tex.; H. E. Babcock, Kalamazoo; H. W. Graber, Tex.; J. C. Hermueler, Chicago; W. C. Hughes and wife, Kans.; L. G. Kellstedt and wife, Chicago; Mrs. F. A. Seeber, Wis.; Miss Cora Lamb, Tenn.; Arthur S. Gay and wife, S. Dak.; R. S. Elwood, Pittsburg; S. H. Bloom, Chicago; J. M. Head, Tex.; C. E. Bennett, Okla.; Miss Theodosia Farmer, Okla.; M. Loone, Mich.; Virginia Coates, Miss.; J. F. Simmons, wife and two children, Ark.; H. N. Pharr and family, and Mrs. M. E. Smith, La.; Wm. Brogan, N. C.; Mrs. W. H. Hays, Miss.; Thos. B. McKay and wife, Pittsburg; Miss N. Hamilton and Mrs. J. O. Roe, Pa.; H. O. McMahon, Detroit; Jas. Boyd and wife, Tex.; J. H. Wood, Wis.; Miss H. Richardson, Mo.; Dr. A. J. Perry, New York; Edw. P. Ellis, Jr., Milwaukee; J. B. Cranfill, Tex.; Jas. H. Strong, Chicago; W. H. Conrad and wife, Ill.; Edwin J. Zehd, Wis.; H. E. Babcock and wife, Kalamazoo; Mrs. S. M. McCollum and Miss McCollum, Tenn.; G. W. Hassett, Pa.; F. M. Seobliey, S. Dak.; J. A. Wagner, S. Dak.; H. E. Hoyt, Ill.; Alex. Carpenter, Mich.; Y. A. Holman, Ala.; Chas. E. Doll, New York City; Mrs. A. F. McCormick, O.; R. B. Kipp, Ill.; J. Karstopsy, Ark.; Lewis Banks and wife, Mo.; Evangeline Lynch, Chicago; Geo. W. Morrow, O.; R. M. Ludlum, City; Dr. Wm. S. Sadler, Chicago; Dr. P. F. Haskell, Chicago; Miss Nellie C. Dashiell, Washington, D. C.; F. H. Morris, W. Va.; F. B. Chapman, O.; J. P. Green, New York City; Alfred B. Booth, Chicago; Chas. A. Ewing, Ill.; Mrs. B. A. Tolman, G. H. A. Thomas and wife, Chicago; G. L. Becker, Utah; Jere Bauman and wife, and

Dick Bauman, Pa.; C. B. Stephenson, Ind.; Mrs. B. B. Johnson and Undine Dunn, Mo.; J. Stehlwin, Tenn.; Z. C. Kell, S. D.; K. O. Rouche, Wash.; C. P. Griest, Chicago; Herman L. Covode, Ind.; E. F. Lloyd and wife, and Jas. Kennedy and wife, O.; L. E. Thomas and L. E. Smith, Jr., and Miss Lois Smith, La.; Dr. Treton, N. Y.; Mrs. S. McLoud, Ark.; Mrs. Allen Baker, Mo.; Wm. Burtless, Mich.; R. B. Moore, Detroit; Mrs. C. R. Russell and Miss Dorothy, Mo.; Mrs. Jas. Philip, Calif.; J. B. Jordan, Mo.; L. I. Manning, Tex.; Misses Sarah and Bella Gwin, Miss.; Miss Anna Palin, Mich.; L. G. Laughlin, Chicago; Mrs. Anna Siegel, Duluth; C. Tedman, India; Mrs. R. J. Gluecklich, Ind.; M. Kiefover, Pa.; E. J. Goyt, Detroit; H. A. Bishop, O.; J. H. Matthews, Chicago; R. H. Matthews, Wis.; W. L. Clark, Ariz.; Dr. F. Rowley and Miss M. Rowley, Tex.; Mrs. Clesa E. George, Wis.; B. Lehman, wife and daughter, Cincinnati; Martha A. Smith, Mich.; Mrs. Sam'l Dickenson, Ind.; A. M. Cobb, St. Louis; J. P. Doan, Ill.; W. S. Tuell, Chicago; T. R. Tont, Tenn.; Miss N. L. Jack, Ia.; J. H. Allen and Elsie Allen, Ill.; T. W. Noble, La.; Mrs. C. P. Thornhill,

La.; Mrs. C. E. Carper and children, Ala.; Mr. and Mrs. C. M. Bannister, N. Y.; Mrs. Alloway Gray and Miss Elizabeth Gray, Tenn.; John M. Alexander, Miss.; Mr. and Mrs. C. E. McKinney and C. L. McKuy, S. Dak.; Mrs. U. W. Van Fleet and two sons, Ind.; Mrs. W. E. Jones and Vincil Jones, Wash.; G. Bingham, Mich.; W. C. McMahon, Wis.; W. J. Moses, Fla.; L. N. Holberg and wife, and Miss B. Holberg, Ark.; Grace Green, Ky.; Mrs. W. Gero, Kalamazoo; Miss M. C. Alvord, Fla.; Mrs. Irene Bobb and Edith Keeler, Chicago; W. O. Holsted, Ind.; S. M. Fudger and son, O.; Marguerite Strong Chicago; Mrs. A. J. A. Spofford, Neb.; A. W. Norton, New York City; Edna McCandless, Ga.; P. A. Selig, Chicago; G. H. Carson, Toronto; Mrs. M. E. Holden, Fla.; B. A. Lunnig, Fla.; S. H. Nichols, Pittsburg; Alfred Aheal and wife, Tex.; Dr. E. Tresca and family, New York City; F. S. Bates and wife, N. Y.; Mrs. Russell Brydon, Chicago; Morderos B. Vortonican, Turkey; Dr. L. Morel, Chicago; Elizabeth McCouley, Ind.; Oliver Moon, Mich.; W. D. Beall, Ark.; Fannie B. Campbell, Tex.; J. A. Von Stone, Chicago.

THE MEDICAL MISSIONARY

An Illustrated Monthly Magazine Devoted to the Interests of Home and Foreign Medical Missions

Contributions direct from all parts of the field represent the work of medical missions in various parts of the world as carried on by all denominations.

A Medical Department is conducted by J. H. Kellogg, M. D., Superintendent of the Battle Creek Sanitarium.

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— VIA —

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SUNDAY EXCURSION

SEPTEMBER 11, 1910

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L. J. BUSH, Pass'r. Agt.

News and Personals

Dr. E. Toresea and family, of New York City, are among the late arrivals.

Dr. Frances Rowley, of Galveston, Tex., accompanied by her sister, Miss Rowley, registered with us last week.

Mrs. S. M. McCollum and daughter, of Memphis, Tenn., have returned to the Sanitarium for further rest and treatment.

Miss Lillian Babcock, of Milton, Wis., has accepted the position of librarian of the private library of Doctor Kellogg and of the library of the Battle Creek Sanitarium, and has entered upon his duties.

We received a visit during the past week from Dr. N. de Pertes, of Florence, Italy, a representative of the Young Men's Christian Association, who is touring this country, gathering up data and information for the use of the Italian Association. Dr. de Pertes was attended and introduced by Mr. Leavitt, formerly Y. M. C. A. Secretary in Japan.

We were glad to have with us a few days ago Mr. Alex. Carpenter, of Monterey, Mich. Mr. Carpenter is an old friend of the institution, having been present when the ground was first broken and having stood all these years as a faithful friend. Mr. Carpenter is now aged and infirm, but recalls with great zest and interest his early experiences in connection with the establishment of the work in this place.

Rev. A. H. Claflin, one of the active and influential pastors of Pittsburg, addressed the Sanitarium family at vesper service on the evening of the 3d instant. Mr. Claflin brought his wife to the institution, where it was found necessary that she should undergo a serious surgical operation. This was most successfully accomplished, and we are more than pleased to state that the excellent lady is now making rapid and satisfactory recovery, much to the joy of her husband and all her friends.

Among the many interesting guests who have been guests at the Sanitarium during the summer weeks should be noted Mrs. Pettigrew, the charming wife of the famous Senator Pettigrew of South Dakota, who has been for years conspicuous as an advocate of many needed political reforms. The Senator was first a guest of the Sanitarium some years ago. Although his stay was short, his penetrating mind quickly grasped the underlying principles of the Sanitarium system and he put them in practice at once. The result has been a very marked physical uplift, which has made the Senator a staunch friend of Sanitarium ideas and methods.

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The Sanitarium School of Health and Household Economics,

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THE ONE-YEAR COURSE

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This course gives necessary instruction and training to prepare those who take it to fill positions as dietitians, lecturers, and demonstrators.

Details of courses are given *in extenso* in the Annual Announcement, which will be sent on application.

LENA F. COOPER, Director,
Battle Creek, Michigan.

The Sanitarium chapel is now in the hands of painters and decorators, who are giving its walls and ceiling a thorough and beautiful new dress. During this time the chapel services are held elsewhere. The Christian Endeavor meeting on Friday evening is held in the gymnasium. Next Friday evening there will be special music. The society has flourished remarkably since its inception a few months ago. The membership is already large and the influence that it is exerting for good in our midst is perceptibly felt. Dr. Francis E. Clark, the father of the order of Christian Endeavor, expects to spend some weeks at the Sanitarium during the autumn.

We present this week, side by side, the remarks of Mr. S. S. McClure, relative to his observation of health principles and methods in Europe, and also in relation to the work of the Sanitarium, and a portion of the lecture of Dr. J. H. Kellogg which immediately followed. In the first part of his address, Dr. Kellogg gave an interesting and detailed account of his earlier and later experiences in connection with the establishment and development of the work of the Battle Creek Sanitarium, in which his audience was greatly interested. The latter part of his remarks, in which he defined and outlined the scientific nature of the Battle Creek Idea, is given in these columns, and forms an article of special value, furnishing as it does a complete vindication of the soundness of the principles for which the Sanitarium stands.

On account of various conditions it has been deemed expedient by its managers to merge the American Medical Missionary College with the medical department of the Illinois State University. During its experience of fifteen years the American Medical Missionary College has established an enviable reputation both in the standing of its graduates and in the character of the work that they have performed after leaving the school. A high standard has been attained and maintained throughout its history.

The students of the school will now attend the University of Illinois, Medical Department, at Chicago, and will be under the supervision and fostering interest of the American Medical Missionary Board, which will continue the education of medical missionaries as it has heretofore. Further details of the new arrangement will be given later, as they are perfected.

United States Senator W. O. Owen, representing the State of Oklahoma, spent a short time at the Battle Creek Sanitarium this week. Senator Owen is the godfather of the celebrated Owen bill now before Congress, providing for the establishment of a health department for the national government. The Senator is an able advocate of health principles and thoroughly believes in the doctrine of the conservation of our best national asset in strong and healthy manhood. Senator Owen addressed the Sanitarium family on the evening of the 5th instant, a large audience listening most attentively to his cogent

arguments for sound principles both physical and moral in public as well as in private life. We shall have the privilege of placing his remarks before our readers next week. The Senator is accompanied by his brother, Major Robt. E. Owen, M. D., of Muskogee, Okla. Doctor Owen enjoys a wide reputation as a skillful physician, a leading man in his chosen profession. Both these gentlemen expressed their pleasure at what they had observed and experienced of Sanitarium life. The interest of the Sanitarium family in the Owen bill gave a peculiar interest to the visit of its famous advocate.

Dr. Nettie Evans Knapp and little daughter, who have been visiting her foster parents, Dr. and Mrs. J. H. Kellogg, and other friends here this summer, left us on the 4th instant for their home at Guanica, Porto Rico, where Dr. Harry Knapp is in medical charge of the 5,000 employees of the greatest sugar-making plant in the world. "Doctor Nettie" is a great favorite in this community, and found a multitude of friends at the depot to "see her off" when she took the train for the East. The little daughter, Helena, named for a dearly loved classmate, although only four years of age, is a veritable prodigy of wit, energy and activity.

Both the Doctors Knapp are engaged in practice in Porto Rico, and with the exceptional success which ought to result from unusual talents and exceptional opportunities enjoyed in preparation.

Mr. Grief, the manager of the sugar plant, stated in a recent conversation that the consumption of flesh food had diminished one-half at Guanica, which may be justly attributed to the enlightenment of the people respecting its unwholesomeness.

As the only representatives in Porto Rico of the Battle Creek System, the Doctors Knapp have an unusual opportunity for the implantation of principles which will be-

come a means of great light and blessing to multitudes who are sitting in darkness.

Mr. Horace Fletcher dropped in upon us rather unexpectedly last week on his way to Winona Lake, Ind., where he goes to attend the annual convention of the International Lyceum Association. In the evening Mr. Fletcher yielded to the universal call for an address. Mr. Fletcher is always heard with great interest by the Sanitarium family, and his constant study of the subject of ingestion and digestion is continually bearing fruit in new discoveries and in the widening of the field of his practical observation. Mr. Fletcher is of gentle and charming personality, and inspires the same characteristics in his addresses, always producing upon his audiences a feeling of assurance and deep interest, to which the evident sincerity of the speaker adds no little power. Mr. Fletcher's remarks on this occasion were transcribed and we shall take pleasure in presenting them to our readers in the immediate future.

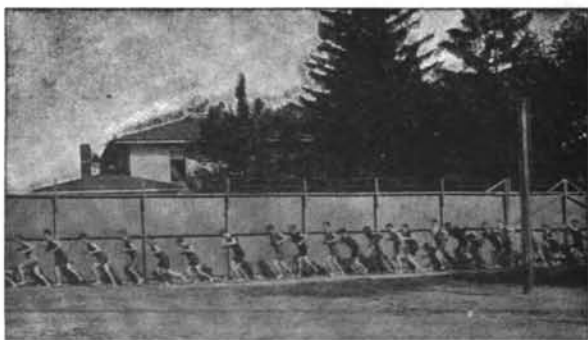
In his address Mr. Fletcher not only dwelt upon the results of his recent investigation in "fletcherism," but also brought forward a new issue which is claiming a large share of his attention as a philanthropist. This is the matter of "Child Conservation." Having spent several months in Copenhagen, where the physical and mental culture of childhood is given special attention by the public authorities, and having studied these subjects both theoretically and practically, Mr. Fletcher is now prepared to carry on a successful crusade in favor of the growing and tender generation. By the establishment of playgrounds and the introduction of open-air life for children in crowded districts, by the introduction of suitable studies in public schools, and other measures tending to promote the culture of children, Mr. Fletcher entertains the commendable ambition of saving and developing a considerable portion of the children who now die prematurely.

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SANITARIUM, Battle Creek, Mich.

THE BATTLE CREEK IDEA

Vol. III No. 41

BATTLE CREEK, MICH., SEPTEMBER 16, 1910

Price 2 Cents

Health by Mastication

Lecture by Mr. Horace Fletcher at the Sanitarium Sept. 5, 1910—Our Responsibility Ends at the Guillotine Line

It always gives me special pleasure to speak to a Battle Creek audience, it is so charitable, so appreciative; but to-night I

Christianity at the Sanitarium

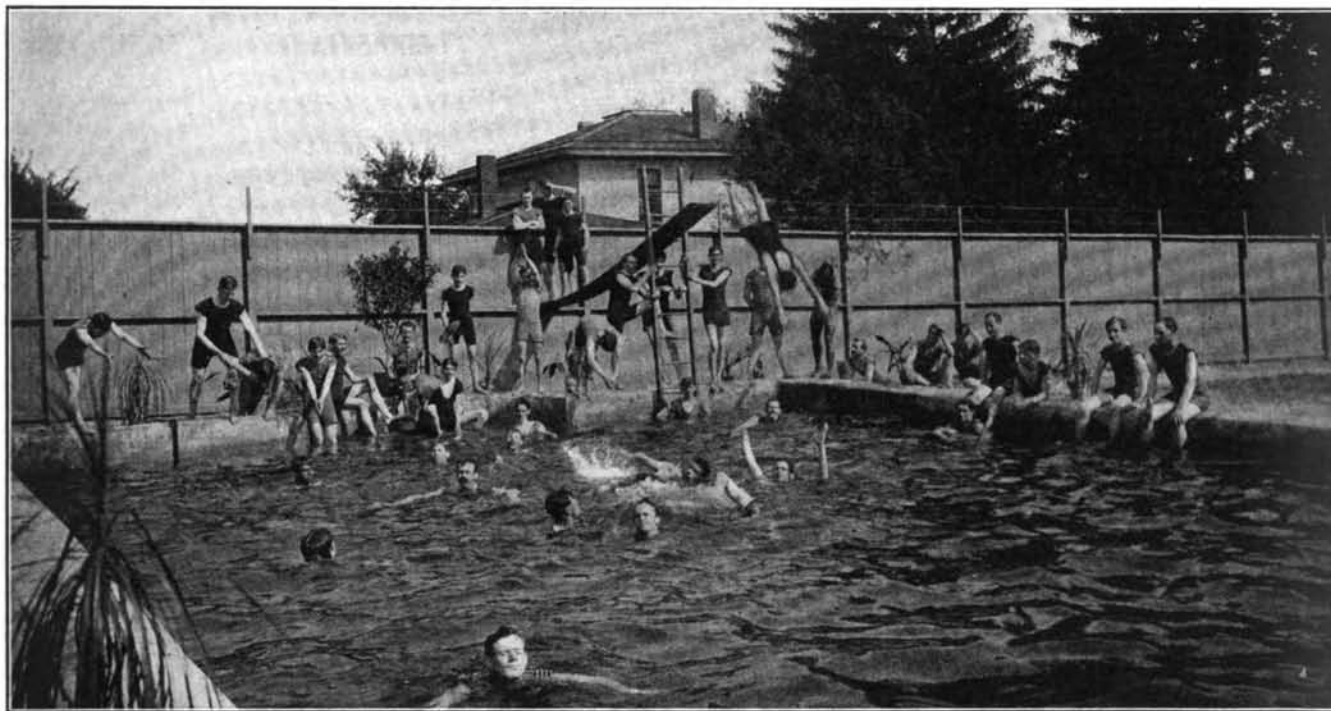
It is Held to Be a Life, Not a Creed—
No Tests of Creed Enforced upon
Workers or Guests

THE Battle Creek Sanitarium aims at moral excellence as well as scientific soundness, and seeks by every laudable means to

The New Hygiene

As Set Forth in a Sanitarium Lecture Sept. 1, 1910, by J. H. Kellogg, M. D.—
Aims at Habits of the Individual

ABOUT thirty-five years ago the health officers of New York were lamentably ignorant of their business because of the fact that



THE MEN'S OUTDOOR SWIMMING-POOL

bring you an especially delightful message because my address is going to be only a brief one, touching upon the subject which I have nearest to my heart; and then I am going to make way for Senator Robert L. Owen, of Oklahoma, who is at the present time, I may say, the wheelhorse in an attempt to get for the United States a department of health, with a secretary at the head; and in order that we, with the whole weight of the government facilities with us and behind us, can enter into researches as important, as far-reaching,

(Continued on page three)

exert a Christian influence upon all who come within the range of that influence. This is not attempted in an obtrusive manner or by offensive means. The employees are required to show at least a wholesome regard for Christian principles and conduct, and the Bible is acknowledged and accepted by the managers as the rule of faith and practice. But in the formation of one's peculiar views of Scripture teaching and dogma, liberty is given to each one to follow his own convictions.

As regards the patients and guests, they

(Continued on page two)

they received their appointments through political influence rather than through civil service examination. Some of the doctors protested against such supervision of public health and demanded an investigation. The Governor appointed a committee to investigate the health officers of New York. The head of this commission was President White, of Cornell University. President White made a report which was published in the *Popular Science Monthly* about thirty-three years ago. He said they asked one of these officers what had been the prevailing diseases in his neighborhood. Well, he said, "we have

UNIVERSITY OF MICHIGAN

had a few cases of measles, several cases of whooping cough, and three cases of smallpox. "Were the smallpox cases contagious?" "I don't know; I didn't go to see." "Why not?" "For the same reason you wouldn't go yourself—I was afraid I would catch it." "Do you know anything about these cases at all? Did they get well, or did they die?" "Well," he said, "two of them died and one of them got well."

The man said that the person who got well of smallpox was of a family of "hyjinnicks." The second man was asked this question: "Have you got any hygienics in your neighborhood?" "Yes," he said, "we have had two or three cases, but none of them were fatal." And to the next man he said,

"Please Define 'Hygienics.'"

He scratched his head a moment, and said, "Hyjinnicks, sir, is a bad smell arising from dirty water."

I think that thirty-five years ago the general impression was that hygiene related to bad smells, to dirty water, to typhoid fever germs, etc. But within the last generation there has grown up a new hygiene, a hygiene which includes a vastly greater scope of subjects. It has been discovered that while the old hygiene, which related chiefly to public measures, the sewers, and general improvement of city conditions, etc., was indispensable and inevitable, that it is insufficient, and that it is not capable of staying the downward tide of degeneracy. As people are gathering into the cities more and more, we find that mortality is on the increase; that while the urban population is rapidly growing, the mortality is increasing with it, diseases are multiplying, and

Something More Must be Done.

Some thirty-two years ago I was appointed a member of the State Board of Health of Michigan, and served as a member of the board for twelve years. I traveled about the State attending sanitary conventions, and I made it a point at every place I went to lecture on the question of race degeneracy, and to tell the people that we are going down hill, and that we are bound to go down hill unless we do something more than we are doing. While we are agitating about public hygiene, and keeping away cholera, yellow fever, smallpox, and typhoid fever, we are keeping a lot of feeble folks alive. When the yellow fever prevailed at Jacksonville some years ago the news was telegraphed, "The drunkards are dying off like flies." When the cholera prevailed in Tunis 150 years ago, the same word went out, "The drunkards are dying off like flies." Whenever there was a great epidemic of that sort it carried off the feeble, degenerate people; so these great plagues acted in a certain way as a means of securing the survival of the fittest, as a means of weeding out the people whose habits had produced degenerate conditions so that they were not really fit to help the race. Now, by keeping away these great epidemics, we keep these feeble folks alive.

The Man Who Has a Good Stomach

can drink typhoid infected water; the man that has a thoroughly good stomach can drink water infected with cholera and it does not

hurt him. I think it was Professor Brieger, who, to disprove Professor Koch's theory of coma bacillus, and to show that the cholera germ was a hoax, cultivated in his laboratory a quantity of cholera germs. He inoculated a pint of beef tea with cholera germs, and developed billions and billions of them, and he swallowed the whole of them and did not feel any inconvenience whatever. There were cholera germs enough in that decoction to infect a whole community if it had been put into the water and distributed; but they had no effect upon him because he had so much gastric juice that he was able to disinfect them. A germ is as digestible as a mushroom; it belongs to the same family, as a matter of fact, and if you can digest mushrooms, you can digest germs. The difference between the mushroom and the germ is that the mushroom does not take root and grow if it is not digested; it simply goes on as so much rubbish; but if you don't digest the germs, they will take root, grow and multiply into billions.

I would not advise you to try any experiments with germs; but the

Man with a Dyspeptic Stomach

is the man that is subject to typhoid fever. When typhoid fever appears in a community, not everybody has it. When yellow fever came along, not everybody had yellow fever. All might be bitten by yellow fever mosquitoes, and all might swallow typhoid fever water, and yet all would not die of them. It is the feeble ones that are inoculated with typhoid fever germs, with tuberculosis germs, and with various disease germs that come along. And keeping these feeble people alive by keeping away these great epidemics has the effect to weaken the stamina of the race; and this fact has now come to be known. Men who are studying the science of eugenics have come to see that it is necessary that the individual man shall be improved; that we must do something more than improve the conditions of life in a general way. When the frost strikes the garden, it is the feeble plants that are killed. The strong, hardy plants are able to survive. Disease is a frost, so it is necessary to make the individual man hardy so he will be so resistant to germs that they can not touch him.

We have not been doing that, but we are beginning to see the necessity for it, and we have what may be termed a new hygiene, a new hygiene which relates not only to the community, but to the individual.

Acute Diseases Are External.

If you wish to get the smallpox, you have to hunt up somebody who has got smallpox, and catch it. If you want your child to get the whooping cough, you have to take him where there are some other children that have whooping cough. Typhoid and yellow fever come to us from extraneous sources. But we do not get rheumatism that way; we do not get Bright's disease in that way; we do not get dyspepsia that way. The only way we get these chronic maladies is by cultivation. But acute diseases come from the outside; they creep in at the window. The cat goes out and visits the neighbors sometimes and brings infection home. The fly hunts up the ejecta of a typhoid fever patient, then comes

into your back door when you are sitting down to the table, and he puts a punctuation mark on that nice piece of bread you are going to eat, and you swallow it, typhoid fever germs and all. That is one of the ways the germs of these various maladies are scattered about, but it is not so with chronic diseases. Acute diseases come from without; but

Chronic Diseases Are a Home Product.

We cultivate chronic disease at home, in the kitchen and dining-room, and all about the house, and we carefully nourish these plants of Bright's disease, rheumatism, apoplexy, arteriosclerosis, and all these dreadful maladies. We train them up like exotic plants, and when we get alarmed at the results, hunt up a sanitarium, expecting to have all these effects rubbed out in a few days.

If we have rheumatism, it is because we have eaten it. Rheumatism is not due to the climate, nor to bad air, but it is always due simply to our own bad diet.

I shall now introduce some statistics to show how these chronic self-inflicted maladies are working at the very foundations of our existence as a race.

(To be continued)

CHRISTIANITY AT SANITARIUM

(Continued from page one)

are at liberty to do as they choose in relation to the religious exercises of the institution. They can not very well avoid the Christian atmosphere which pervades the place with a gentle and quiet atmosphere that is at once restful and uplifting. Everybody is conscious of this spirit, and there are very few indeed, if any, to whom it is not most welcome. Many people do not stop in the busy lives of care or pleasure they lead to reflect until they are ill, and then the thoughts of divine goodness come soothingly to their worried minds.

In its religious life the Sanitarium is not devoted to any sect or denomination. All denominations are represented largely both in the patrons and employees, but no partiality or preferences are shown. Christian virtue and character are recognized and valued highly, while names and theoretical distinctions do not count. At the same time, continual efforts are put forth to maintain an active Christian spirit, in its best sense, in the likeness and after the example of the great Master of us all, who in an unostentatious way went about doing good and ministering to the wants and sorrows of the people.

To best maintain the Christian spirit, it is necessary to maintain outward worship, and periods of worship and devotion are inserted in the regular program. Provision is made for sustaining services of various character at stated times. Each morning before breakfast "family worship" is held in the large parlors for the benefit of the patients and guests. These periods are for twenty minutes and consist of singing, reading the Scripture, and prayer. No one is constrained to attend these or any other services; that is entirely at the choice of each individual. They are, however, largely attended, and

many express the help and comfort they derive from them.

Regular church services and Sabbath-school are held in the Sanitarium chapel, which is in the lower story and at the south end of the building. This room will seat five hundred people, is furnished with comfortable seats, a pipe organ, and is now being re-decorated and fitted up in a comfortable and attractive manner.

On each Friday evening there is a song service in the main lobby, which is seated for the purpose. Here the old songs familiar to everybody are sung by hundreds of voices, and the glorious harmonies and melodies that have cheered so many hearts are echoed up through the halls to every portion of the great building. This is one of the most favorite hours of the entire weekly program. After this the weekly meeting of the Christian Endeavor society is held in the chapel, in which a large company usually participate.

Short devotional services are held in various departments for the benefit of the helpers. In the treatment rooms each day's work is preceded by such a service. In the dining and serving departments the workers pause in the midst of the forenoon's work for a few minutes' service. In the surgery all operations are preceded by prayer, and in other departments similar services are maintained. The effect of these services is to banish and exclude all coarseness and incivilities and bring in among the workers that spirit of gentleness and quiet faithfulness that have been so marked a feature of the Sanitarium work throughout its whole history.

Religion is not carried along in the Sanitarium as an offensive and obtrusive fixture, but it is encouraged because of its salutary effects wherever in its true form and spirit it touches human life. Nowhere is it more needed and felt than in the place where sickness and suffering congregate, for there is no other force in existence so potent in dispelling despondency and in elevating the spirit as in the religion of Christ.

HEALTH BY MASTICATION

(Continued from page one)

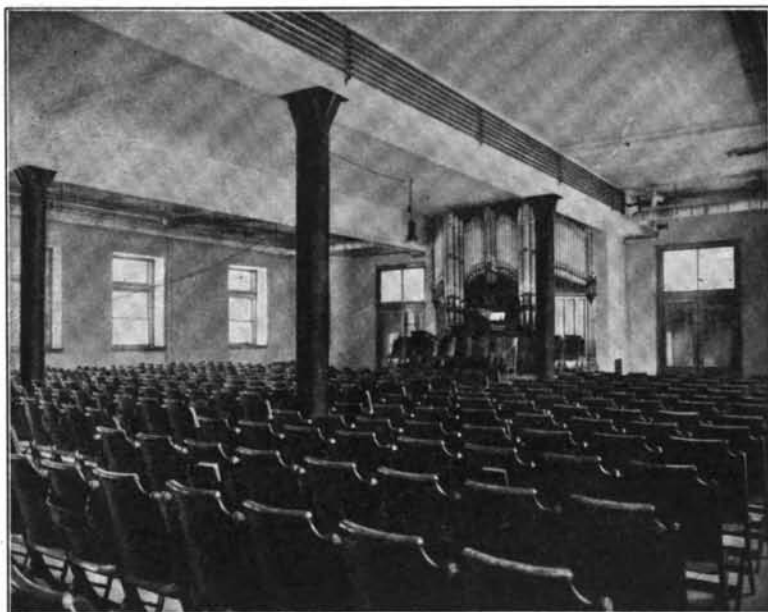
and as helpful as we are now giving to the cows and the hogs. We have also with us tonight the doctor brother of Senator Owen, a retired medical officer, a major in the United States army, who for the past ten years has been devoting himself with missionary zeal—and you at Battle Creek know what that means—without compensation, to researches and propaganda for preventive medicine. With such a lieutenant adviser and counselor always at his elbow, Senator Owen is better fitted to lead the campaign for the department of health than anybody else whom I know.

There Are One or Two Pictures

which we have collected out of our experience in the study of this subject of the initial treatment of food for digestion which perhaps will be new to you; and one of these pictures is the sympathetic use nature makes of one function for performing several purposes.

When I began the study of this subject I found a poverty of interest in the subject of

the first three inches of the alimentary canal, which is our only responsibility. Turning to books for information, I stumbled upon a little book in one of the libraries by the Hon. William T. Harris, at that time a commissioner of education for the United States, and to whom all the pedagogues of the country looked as an oracle for information. He had published a little volume on physiology, in which he had presumed not only to describe the senses but also to give their character; and he said of taste: "It is the lowest of the senses because it caters to intemperance of eating and drinking." I disagreed with him at once, because there is nothing in nature lower than anything else; everything has its purpose, and it certainly seemed to me that the sense of taste, which was really the discriminator in regard to our nutrition, could not be degraded by nature and put there as a tempter rather than as a guide and true friend.



THE SANITARIUM CHAPEL

And so I took up the study of the subject of taste, with the result that although at that time I was forty-five years of age, and had been tasting all my life as many times a day as possible, I practically knew nothing of it. I found that taste had a marvelous use, if properly used, in the development of the most exquisite flavors from the most commonplace foods. I found that taking into the mouth a simple morsel of bread, consisting principally of starch, having no taste when first taken into the mouth, under the treatment of the saliva by the aid of mastication, developed a taste which became sweeter and sweeter, until finally it was sweeter than any cake or any artificial saccharin substance. Or, in other words, in the laboratory of the mouth,

The Ptyalin of the Saliva

was able to transform that indigestible starch into dextrose, which is the assimilable form of starch, and in doing so it gave us the most delicate and delicious of tastes; and in following the taste to the limit in the study of

that important sense, I found something more delicious than any sugar in the sweetness that the mouth could produce.

Among my grandchildren who have been brought up from at least a year and a half before they were born as fletcherites, and who have never known anything else, the taste for simple foods is delightful and surprising. One grandchild, a little girl named Esme, was invited to a party in Venice, where there were a great number of children, and they were being fed chocolates and cakes and all kinds of tempting things, and it was noted that Esme sat at the table kicking her heels together and looking about abstractedly, and the nurse said to her, "Why, Esme, you are not eating anything. Can I bring you something?" And she replied to her, "Please, may I have some bread?"

There was nothing to suit her epicurean appetite in all that sumptuous provision or to take the place of delicious bread. If any

of you will take a bit of zwieback or bread into your mouth, having a good appetite to begin with, which is the first requisite, observe that it is tasteless, and will begin to masticate it, mix it with the saliva, you will find that there will be a development of the taste which is surprising to you, unless you have already made the test. And you will find also that there is

A Wonderful Mechanism at the Back of the Mouth,

about which I have been talking with Doctor Owen this evening, in the form of a row of sentinels standing at the gate between the human responsibility and the responsibility undertaken by nature herself; and they are called circumvallate papillae. They are in the form of a horseshoe. And they stick up in their portion of the cavity of the mouth as large as fence posts at the entrance to a front or back yard. And around each one of these circumvallate papillae is a little trough, and terminating in each of those troughs are an infinite number of nerves and taste buds.

(Continued on page five)

The Battle Creek Idea

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THE HIGH COST OF LIVING

ONE is almost ashamed to write the above phrase because it has been written and spoken so many times recently that it almost has an unsavory odor. But it is really a live matter still, and one that suggests itself much more frequently than it appears in print. The reasons that have been given for the elevated position of the prices of the commodities of life are legion, and yet it may be questioned as to whether they have covered all the ground. There is not the slightest apparent reason to expect that the prices of these commodities will ever return to the low level on which they rested within the memory of us all. That would imply a reversal of the entire social and industrial machinery of our country and the world, and apparently one might as well undertake to reverse the course of Niagara, and turn the current toward Lake Erie as to interfere with the drift of society in these days of high-pressure living.

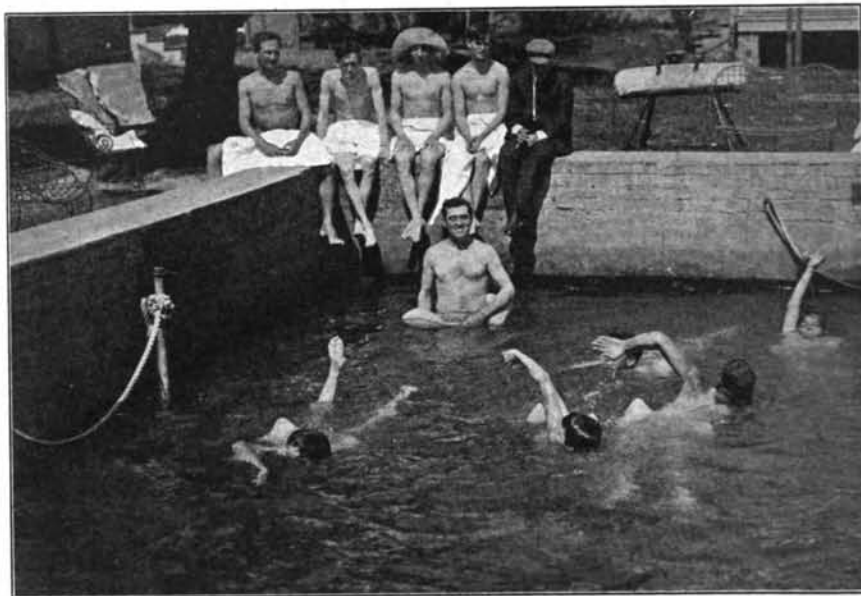
The return to the low prices of labor and of utilities and luxuries would mean a catastrophe of awful dimensions. It may come, to be sure, but it will be second only to the crack of doom itself. A writer in *McClure's Magazine* gives us to understand that the phenomenal rise of prices is due to the diminishing value of gold, which is the criterion of all other values. Gold is becoming so abundant through the large production of the precious metal that its purchasing power is decreasing, as is shown by the larger amount of gold that is demanded for purchase prices. There is probably much truth in that suggestion, but another and more potent factor in the present situation is the unbridled conception of the people at large as to what constitutes good living. No longer satisfied with the living conditions of preceding generations, the public of nowadays has adopted an unprecedented pace in extravagance. The plain and simple conditions of fifty years ago are not to be thought of or even suggested. Two bushels of oranges are not now so highly prized by the writer as was the quarter of an orange peel in his boyhood pocket.

But high prices of living are not after all an unmixed evil. Some good may come from this condition, though much evil and suffering are likely to come. The price of flesh for food has joined in the soaring movement, and has rather excelled. The result is that many people are beginning to realize the truth hitherto unperceived by them, that flesh is not at all a necessary article of diet. The large sums hitherto paid to the butcher may just as well be saved and devoted to some other and better purposes. Some are learning the next truth in the series, that meat is not only unnecessary, but actually harmful and deleterious, that its place in the family dietary may be supplied from the garden, the orchard and the farm to a very great advantage to the pocketbook and the health of the household. It is very poor economy on the face of it to consume five pounds, say, of

SWIMMING AT THE BATTLE CREEK SANITARIUM

THE cultivation and the practice of the art of swimming is actively encouraged at the Sanitarium as a precaution for safety, but especially as a hygienic and therapeutic measure. It has been ascertained beyond question that swimming is one of the most effectual methods of calisthenics in cultivating all the muscles, and that the bathing is in many complaints an excellent measure for relief. Mr. Howard Province is instructor for men, and Miss Pearl Hunter for the women. For the past few days Mr. G. H. Cersan, of Toronto, swimming teacher for the Toronto University and for the National Y. M. C. A., has been with us and has given some fine exhibitions and instruction. Mr. Cersan furnishes us with a communication concerning his favorite subject and art as follows:

The playground, to be complete, must have



FIRST LESSON IN SWIMMING

corn to produce one pound of pork, when one pound of corn is worth two pounds of pork for food. It is still poorer economy to eat the pound of pork with all its disease-producing elements and accompaniments, when the five pounds of corn will do ten times as much in supporting the family energy and do it in a healthy and wholesome manner.

If high prices will only have the effect to set people to studying the economical laws of life, and lead them to reduce to practice the lessons they learn, we can not say but it may prove to be a great blessing after all. The great cost of living comes in the obtaining of the unnecessary things rather than in getting the necessities of life. The time has not yet come when people can not live healthfully and happily and successfully on a moderate income if they are only willing to do so.

a shallow swimming-pool; otherwise the playground will have no more attraction for the average boy than has a field without a tree. Instead of a foot-deep wading-pool, the depth should be increased to two feet at the shallow end, and two and a half or three feet at the other end. Thus there is an utility pool in which a boy or girl may learn to swim well. And in such a pool a full-grown man may have a good swim if he swims rightly. One might suppose his knees would bang against the bottom, and so they would if one swam with the old-fashioned "breast stroke." It is because of the insistence of teachers that beginners shall commence with the broad breast stroke and the "frog kick" that the art of swimming remains so much of a mystery.

On the other hand, the "crawl stroke" is simplicity itself, having but two counts, while the other has nine, and many co-ordinations which confuse the pupil. In the former there are no square angles presented to the water, while in the "breast stroke" there

are at least six. In the 'crawl stroke' the body is propelled through the water by the shoulder muscles, thus increasing the lung capacity with less expenditure of force. The speed of this stroke is also much greater than that of the other. Pupils learn this form of swimming much more readily than the other form.

The illustration shows a small class being instructed in the arm stroke. The boy to the right is practicing the alternate over-arm stroke on his back. The first position of the legs is straight and close together, so the photo shows the boys in error in this respect. Note the hooked position of the man's hand, forming a perfect scoop. The water wings are shown under the middle of each pupil, and these are the best aid for learners of swimming that have ever been introduced. By their use a single instructor can lead a class of even one hundred pupils.

HEALTH BY MASTICATION

(Continued from page three)

There stands that important guardian of the gate, as it were, and when you have taken the morsel of bread in the mouth, have mixed it with saliva, it has a peculiar creamy taste that becomes sweeter and more delicious; and you will find, even if your head is held forward, that that creamy, chymified food material will be drawn up the center conduit of the tongue and assemble at the gate right around those guardians, the circumvallate papillae; and when a sufficient quantity of it is collected there, and when those guardians of the gate, those nerves surrounding the circumvallate papillae, have reported upon it that it has been properly transformed, the message is sent to the ganglia in the brain, "All right; the material is here; it has been properly inspected; it is ready for use in the nutrition of the body." And immediately word is sent back to the muscles, which close completely the gate, cutting off the throat from the mouth, and the gate is opened; we feel an impulse to swallow; the food is sucked back into the swallowing area; it is picked up by the peristaltic rings; it is carried on to the stomach; and if it is carried there in that way after the inspection of the circumvallate papillae, and the opening of the gate voluntarily, we have no further responsibility and need have no more thought of it; no sense of distention, no dyspepsia, and nature takes it up and carries it on.

That is the mechanical process. But here is a picture which is new. Not only does nature use taste to report to our intelligence the chemical processes going on which ought not to be interrupted until taste has been exhausted, but

Nature Invites Us to Eat;

and when the taste ceases to be good, it is an indication to us to stop eating. And all of us know, when we get hungry and are confronted with food, how delicious the first morsels taste. We say our mouth is watering, and the food melts in the mouth; and after a little while we will find that the taste will begin to wane; it is less acute; and finally the food will be repulsive; and that is nature's sign that she has received all she needs, and does not want any more.

(Continued next week)



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St. Johns, N. B.	- 29.50	Atlantic City, N. J.	25.70

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L. J. BUSH, Passr. Agt.

ARRIVALS

THE following is the list of arrivals at the Sanitarium for the week ending September 11: E. C. Mutter, Ohio; Geo. Bauman, Wis.; Mrs. D. E. Owen, Chicago; Senator Robt. L. Owen and Major W. O. Owen, M. D., Okla.; Horace Fletcher, Venice, Italy; Mrs. J. L. Dunning, Ind.; Walter Poole, Mich.; A. E. Stauden, Chicago; Mrs. J. Stauden, Saskatchewan; R. F. Kary, Mich.; Miss Susie Fear, Mich.; Ben Spears and wife and ward, Tenn.; W. M. Anderson, Miss.; Jamie C. Yoder, Ind.; Della Eunice Gardner, Ind.; Fern Groves, Ind.; I. R. Wheelock, Kansas City; Olean Doty, Detroit; A. A. Grief, St. Louis; H. Brin, Tex.; W. A. Wood, Wis.; Margaret Barnett, Kan.; Alice P. Ransdell, Ind.; Hannah Boggett, Kansas City; Joe Mattox, Ohio; A. L. Farmer, Okla.; Miss Elsie Peackie, St. Louis; Alice Dannenberg, Okla.; Mrs. N. B. Dannenberg, Okla.; Florence Peterson, Ill.; Nettie Anderson; I. A. Jennings, Pensacola; Dr. P. W. Rowland, Miss.; Claud Tucker, Ill.; Jos. D. Carr, Nashville; Mrs. Victor Voris and daughter, Ky.; Misses Gertrude and Josephine Rawson, Cincinnati; Lenna Randell, Ohio; Mrs. Mary Cook, Ohio; Miss Mabel Skipp, Ohio; Mrs. W. H. Jones, Columbus; Leroy Lemler, Miss.; Mrs. M. Lemler, Miss.; L. R. McKowen and wife, La.; Miss Sarah McKowen, La.; J. M. and Mrs. Arnsworth, Ohio; Mrs. Hardesty, Ohio; Mrs. E. E. Neal, Ind.; R. J. Fuller, Ind.; Cliff Williams and wife, Miss.; Rev. J. R. Alexander, Egypt; H. C. Mason, Mich.; Clifton Greaves, Hot Springs; Mrs. S. E. Garvin and Miss Garvin, Cincinnati; Mrs. J. H. Flemming and Miss Flemming, Pittsburg; Mrs. E. L. Kenyon, Atlanta, Ill.; Alma A. Koertger, Ill.; W. W. Meadows, Ky.; Miss Thomas, Kansas City; Miss Taugh, Kansas City; Governor W. R. Stubbs, Kansas; Miss Lenora Stubbs, Kansas; Mary McCreary, Pa.; Mrs. Luella Irvine, Kan.; C. H. Woodruff and wife, Ill.; Miss Woodruff, Ill.; Miss J. I. Kipp, India; Mrs. Geo. E. Moran and child, Chicago; W. A. Buntin, Tenn.; Eniss Brough, San Antonio; Mrs. Milton Humes, Ala.; E. T. Lang, Mich.; Miss Catherine Cumfer, Pa.; John P. Herriek, N. F.; D. W. Yeote, Detroit; Philip Krug, Cincinnati; F. C. Sombito, Philippines; Mrs. Katrina Mortensen, N. Y.; Rev. C. B. Wetherell, Chicago; A. C. Perrill and wife, Chicago; Mrs. O. M. Carmony, Ohio; R. H. Matthews, Wis.; Mrs. C. M. Archer, Mich.; Mrs. McPherson, Mich.; J. W. and L. F. Carpenter, Cincinnati; Floy Hoobler, Ill.; W. E. Shackleton, Cleveland; Fred Mansfield, Mich.; Mrs. Geo. S. Parks and child and nurse, Nashville; W. J. Northers, Tenn.; Dr. J. W. Torbitt, wife and son, Tex.; Rev. Wm. Ashmore, Swatow, China; W. G. L. Rice, Tenn.; James G. Smith and wife, Miss.; Mrs. J. L. Fearing and Lamore, Chicago; Mrs. Daniel Hogan, Ill.; Mrs. H. R. Arnold, Ky.; Mrs. J. T. Epla and Miss Rea, Ill.; Chas. W. Hellstrom, Chicago; G. Keppie Patterson, Edinburgh; Mrs. G. Seigel, Minn.; Mrs. B. W. Jenks and Hazel, Mich.; G. P. Christianson, Iowa; Gideon Nusbaum and wife; W. R. Wright, wife, child and nurse, Miss.; Max Lemler, Miss.; C. Nusbaum, Ohio; Mrs. H. Landau, Miss.; Hy. J. Cox, New Orleans; Mrs. M. W.

Edson, Ind.; Dr. Gertrude Morse, Ind.; Forbes Wiley, Ind.; Miss Nella Kline; Mrs. W. H. Wolfe and Miss Bettie Wait, W. Va.; J. S. Major, Mich.; Miss Charlotte Young and Miss Frances L. Case, Mich.; Jno. J. Garrison, N. Y.; Wm. McPherson, Jr., and Dr. J. E. Browne, Mich.; P. D. Palmer and wife, Columbus; Miss Lura Danby and Miss Campbell, Dallas, Tex.; W. R. Stubbs, Kan.; M. F. Fowlkes and R. C. Gentry, Tenn.; Geo. R. Swarth, Dallas; Grady and O. K. Benjamin, Ky.; Hazel Halstead, Ind.; Florence Grace Steinbaugh; Mrs. H. Landon, Miss.; Roderick A. King, Indianapolis; Mrs. L. Lanier, Miss Gabriella Lanier, Ga.; Mrs. R. C. Freeman and Miss Gabriella Freeman, Ga.; J. T. Noltrey and Dr. S. W. Irvine, Pa.; H. Ross Arnold, Ky.; Rep. Chas. E. Townsend, Jackson, Mich.; Evelyn Dewey and Mrs. F. J. Dewey, New York City; Mrs. John Hannon and Miss Hannon, Kan.; Miss Maia P. Ellis, Mont.; J. F. Thompson and wife, New York City; E. O. Harrison, Ark.; Mrs. S. D. Wait and child, N. C.; Mrs. R. T. Faut, Tenn.; W. H. Miller, Indianapolis; F. W. Rogers, Wis.; Dr. William S. Sadler and wife, Chicago; Mrs. Louis F. Werstein, Mich.; Mr. and Mrs. M. J. McPherson, Mich.; J. A. Goodyear and wife, Manchester; Mrs. T. M. Campbell and Mary Della, Austin, Texas; E. E. Flickinger, Indianapolis; B. L. Naylor, wife and daughter, Tex.; Jennie A. Kurtz, Ohio; Milton N. Pifer, Ohio; Michel Provosty, New Orleans; M. S. Cole, Ind.; Jos. Knight, Chicago; Mrs. E. J. Dunn and son, Ill.; L. Y. Smith, Ohio; E. S. King and wife, Wis.; Mrs. W. H. Jones, Columbus; Mrs. E. D. Moyler and son; P. F. Osturm and wife, Grand Rapids; Mrs. S. C. Palmer; H. L. Stevens, Okla.; D. T. Brough, Ind.; W. H. Miller, Indianapolis; F. B. Chapman, Columbus; Mrs. Wm. B. Melish, Cincinnati; J. Y. Curry, Louisville; R. Marx, New Orleans; Daniel Rich,

South Bend; A. H. Messer, Mattoon, Ill.; J. E. Haye, Chicago; Mrs. Chas. L. Lewis, St. Paul; A. Reffel and wife, Memphis; M. A. Warren, Lincoln; Mrs. R. B. Wood, Detroit; Mrs. S. P. Burstein, Cleveland; Mrs. M. S. Pugh, Kansas City; O. H. Sebring, Ohio; Mr. and Mrs. R. V. Lightner, Pa.; R. E. Hart, Mich.; Mrs. Alloway Gray and Elizabeth, Nashville; Jas. E. Carnes, Tenn.; Fred J. Orr, Ga.

A rate of \$3.65 for the round trip is made to Detroit by the Grand Trunk Railway System on account of the Michigan State Fair. Tickets on sale for all trains Sept. 19th to 23d, inclusive. Return limit, Sept. 26th. This is the only line running their trains direct to the fair grounds. Special train service on Wednesday and Thursday.

News and Personals

Mrs. E. J. Dunn and children, of Springfield, Ill., are making their eighth annual visit at the Sanitarium. At this time they expect to remain until next May.

Miss J. I. Kipp, of the Southern India mission field, who was with us for a period in the early summer, has returned for further fitting up in health before returning to her chosen work.

We are obliged to postpone the publication of the excellent address by Senator Robert L. Owen delivered last week to the Sanitarium audience. We hope to be able to bring it out next week.

Prof. E. D. Kirby, who has for many years in a most efficient way filled the position of professor of languages in Battle Creek College, and more recently that of principal

\$9.00

BUFFALO, N. Y. and RETURN

Tuesday September 27th 1910

— VIA —

The Grand Trunk Railway System

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L. J. BUSH, Pass'r Agt.

of the Preparatory School, now finds it necessary to retire from teaching for a time on account of ill health, and will seek residence in the West.

Rev. Wm. L. Curtis, who for a long term has labored in Japan under the American Board, is again with us for a short time, previous to his return to Japan. Mr. Curtis has greatly improved in health since first coming to the Sanitarium and has made many warm friends.

The senior nurses' class to the number of forty, with several friends specially invited, held a picnic and corn-roast at Gull Lake on Monday of this week. A very enjoyable time is reported by the participants, and the outing was well deserved by these faithful workers who have done acceptable service during the summer.

Mr. Joseph Knight, from San Antonio, is taking treatment at the Sanitarium. Mr. Knight was for some time employed at the Sanitarium, and his many friends are pleased to see him again and unite in predicting for him a speedy recovery from his ailments, brought on, as he supposes, by the unusual heat of the Southern summer.

We are pleased to have with us once more our staunch friends, Doctors Julia and Lillie Carpenter, of Cincinnati, who visit us from time to time to rest and recuperate from their arduous work. Dr. Gertrude Morse, of Madison, Ind., came to us this week, accompanying Mrs. M. W. Edson, who comes as a patient, this lady having met Doctor Kellogg in Porto Rico last winter.

Miss Charlotte Dancy, of the Sanitarium Nurses' Training-school, has returned from a visit to the Illinois Hospital for the Insane at Elgin, where she has been several times to instruct the nurses of that institution in hydrotherapy. The use of various forms of baths in the treatment of the insane has been demonstrated to be a most effectual method of controlling many of those diseases which produce insanity.

U. S. Representative Charles E. Townsend, of Jackson, Mich., who has recently been approved at the primary election for U. S. Senator, was a guest at the Sanitarium for a

few days last week, taking necessary treatment and recuperation after a vigorous political campaign. Mr. Townsend enjoys great popularity among the people of this part of the State, and everything indicates that he will honor this confidence should he be elected to the high position for which he is named.

One of the landmarks of Battle Creek was removed last week by the death of Dr. S. S. French at the age of ninety-four years. Doctor French was highly esteemed in our community for his personal qualities and for the long life of usefulness lived in our midst.

Low One-Way Rates TO PACIFIC COAST POINTS

VIA

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Tickets on sale to California, Nevada, Arizona, Mexico, Aug. 25 to Sept. 9th, also Oct. 1st to Oct. 15th. To Colorado, Utah, Wyoming, Aug. 25th to Sept. 9th; also Sept. 15th to Oct. 15th. To Montana, Idaho, Washington, Oregon and Canadian Northwest, Sept. 15th to Oct. 15th. Stop-overs allowed at certain points. Full information gladly given.

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The Sanitarium School of Health and Household Economics,

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Battle Creek, Michigan.

He was at one time president of the State Medical Society. For three terms he served the city as mayor, and for a much longer time as alderman. He was surgeon of a regiment in the Civil war, and for many years had a large practice in his profession in this city, and was ever a staunch and true friend of the Sanitarium.

Dr. J. B. Murfree, a physician of fifty years' practice, from Murfreesboro, Tenn., who has been a guest and patient of the Sanitarium for the past few weeks, has now returned to his home to resume his practice, having received much benefit from his stay in the institution. Doctor Murfree is a grandson of the pioneer from whom the city of Murfreesboro obtained its name. The Doctor was surgeon in the Confederate army during the Civil war, has enjoyed an extensive practice in medicine, and is highly esteemed as one of the substantial citizens of his native town.

G. KEPPIE PATERSON, M.B., F.R.C.P.E., treasurer of the Edinburgh (Scotland) Medical Missionary Society and an eminent physician in the city of Edinburgh, was a caller at the Sanitarium recently. He was able only to take dinner with us and inspect the institution for a few hours, as his visit to this country allowed him but thirty days from the start to the finish of his trip. The brevity of his stay was regretted by us all, but it gave us much satisfaction to form the acquaintance of so estimable a gentleman, especially as the representative of a society whose work is extended to all the non-Christian world.

Governor W. R. Stubbs, of Kansas, came to the Battle Creek Sanitarium from the Conservation Congress in St. Paul, where he is accredited with having made some drastic remarks in regard to political reform. Governor Stubbs addressed the patients of the Sanitarium on the evening after his arrival, reiterating many of his pronounced sentiments in regard to public and private life. The Governor is evidently on the warpath against grafters and political corruption. He brought to the Sanitarium with him his daughter Lenora, who remains for treatment. Miss Stubbs has gained distinction in her State as a worker in domestic economy, having won the first prize at a recent State fair for bread making. She is an interesting and intelligent young lady, well versed in the practical matters of life.

The meeting of the Christian Endeavor Society held on last Friday evening in the gymnasium was an interesting occasion. Miss Mabel Cranfill, of Texas, sang a beautiful song, and the remaining time was well filled with various speakers on the topics for the evening. Rev. Wm. L. Curtis took a few moments to relate in a very interesting manner the workings of the Christian Endeavor Society in Japan, where he now resides as a missionary. A class of girls led by Mrs. Curtis has particularly excelled in devoted work. Mr. Curtis related how this class came to the regular meeting on one evening when the snow was deep and falling fast. They were unable to wear their high wooden shoes in

the soft snow, so they removed shoes and stockings and every member of the class was present, coming barefooted in the snow. The meeting next Friday evening will also be held in the gymnasium and will be led by Dr. M. A. Mortenson.

Rev. J. R. Alexander, D. D., of the Presbyterian church, a missionary in Assouan, Egypt, is a guest at the Sanitarium for a few days, previous to returning to his field of labor where he has been stationed for a good many years. Doctor Alexander spoke to the Sanitarium family one afternoon, giving a very lucid and impressive account of the Egyptian people and the state of affairs in that country, and also giving an account of the great work being done by the society with which he is connected. Egypt, though appearing very extensive on the map, is really restricted to a small area situated in the Nile valley, comprising not more than 40,000 square miles, and containing 11,000,000 people. The country, nominally dependent upon Turkey, really is left free in the exercise of its own government, the Turkish Sultan having simply the power to replace the Khedive or principal ruler of Egypt. The work of the mission society is carried on in four departments—educational, the distribution of Christian literature, medical missionary work, and evangelistic work. In all these a good measure of success is attending the work, 40,000 Egyptians having embraced the Gospel under the labors of this society, 11,000 of whom are living at present, and members of 300 different churches scattered up and down the Nile valley. Medical missionary work is carried on by means of Nile boats, which are able to visit the various villages and towns of the country, dispensing health and healing to the suffering inhabitants.

Miss Almira Fay Leavitt, of Naples, Italy, stepped at the Sanitarium a couple of days this week visiting her nephew, Mr. Leavitt,

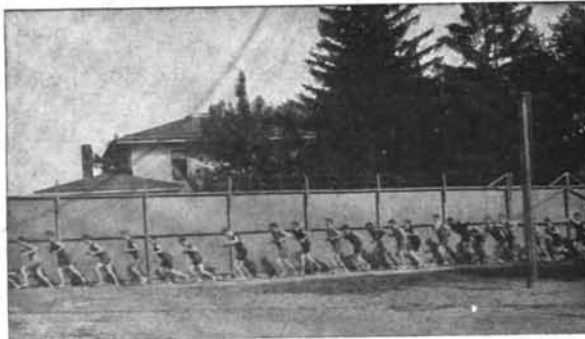
who is taking treatment at the Sanitarium after a long campaign of Y. M. C. A. secretory work in Japan. Miss Leavitt's health broke down some years ago and was restored to her after four years of travel in Europe, Asia and Africa. Giving Italy the principal credit for her restoration, this lady decided to devote the remainder of her life to the interests of that country; considering the condition in which students of the higher schools lived, she saw a great field for work before her. These students are without organization or protection of any kind. There is not the slightest personal relation existing between them and their instructors, except in the formal matter of class recitations. With no one to look after them or care for them, they are left to wander in the streets exposed to the worst influences and for the greater part are irreligious, atheistic, intemperate, and corrupt. In spite of many difficulties, and single-handed, Miss Leavitt succeeded in collecting a large number of the students from the University of Rome in a Christian home, but soon transferred her labors to Naples, which she regarded as a far more needy field. She went there against the warning of many friends, who admonished her that her efforts would be fruitless and she would be exposing herself to a great deal of hardship and danger. She found the hardship at first, but finally succeeded in getting a foothold and making a small beginning with a class of young men who became much attached to her, and from that beginning her work has rapidly increased until it has attracted wide attention. The movement is affiliated with the Young Men's and the Young Women's Christian Associations, and is guided largely by the counsel of Dr. J. R. Mott and other well-known philanthropists. Miss Leavitt gave an account of her experiences to the Sanitarium family in a parlor lecture on Sunday evening, the subject furnishing a most interesting and instructive address.

Normal School of Physical Education

A Great Opportunity for Men and Women

A Two-Years Course. Each year comprises thirty-five weeks and an eight-weeks Summer Course.

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WM. W. HASTINGS, DEAN,

SANITARIUM, Battle Creek, Mich.

THE BATTLE CREEK IDEA

Vol. III No. 42

BATTLE CREEK, MICH., SEPTEMBER 23, 1910

Price 2 Cents

Health by Mastication

Lecture by Mr. Horace Fletcher at the Sanitarium Sept. 5, 1910—Our Responsibility Ends at the Guillotine Line

(Continued from last week)

BUT you perhaps do not know that nature makes use of the same expression of taste to communicate with the stomach by the way of the great vagi nerves which have an infinite number of terminals along the walls of the stomach, and by that communication the stomach is advised in advance of what to expect. The intelligence of the stomach is in such intimate touch with the intelligence of taste that it knows the amount of protein, the amount of carbohydrates, and just what to expect. So that during the ten seconds required for food to reach the cardiac opening of the stomach, there has been provided by the glands of the stomach adequate and appropriate digestive agents, suitable for what has been passed upon and inspected in the mouth; and those signals are communicated all the way through the stomach to the duodenum, and on as far as is necessary; so that if we perform our part of the work within the field of our responsibility above the guillotine line, where all the senses are bunched, and where we are conscious and have control,—if we do that, mind you, working in that three inches of the alimentary canal where all the compensation, all good taste is given with every reward, nature will take up the rest of the work and carry it on satisfactorily through all the rest of

(Continued on page four)

OUR NATIONAL HEALTH PHYSICAL AND POLITICAL

A Lecture in the Sanitarium Parlor, by Hon. Robert L. Owen, United States Senator from Oklahoma

Introduction by Mr. Fletcher

We have with us here to-night, Senator Robert L. Owen, who is, to my mind, the leader of what you might call the new thought

(Continued on page two)

The New Hygiene

As Set Forth in a Sanitarium Lecture Sept. 1, 1910, by J. H. Kellogg, M. D.—Aims at Habits of the Individual

(Continued from last week)

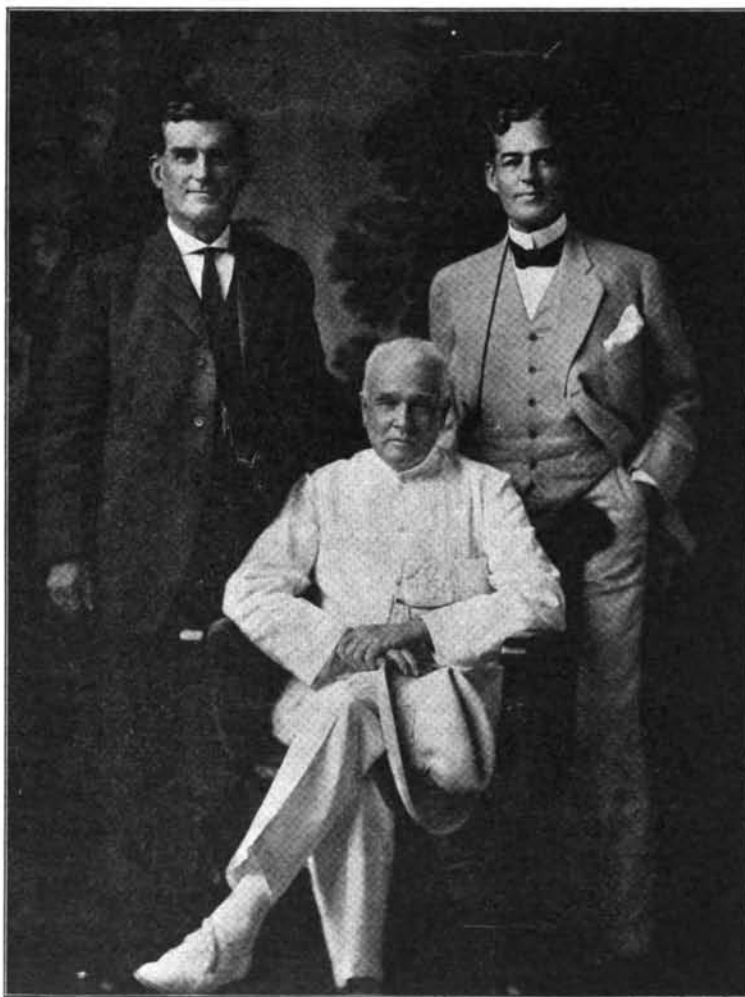
Now, here are a few statistics. Statistics are usually considered rather dry, but this is an encouraging picture. I have here a table

which shows the decreasing death-rate, in that part of the United States where a record is kept, from specified diseases in 100,000 population.

In every 100,000 people in the year 1900, fifty people died of old age. Some seven years later, only thirty-two people died of old age out of 100,000 each year. So we are apparently improving. At first glance we would seem to be getting on splendidly.

Decrease in Mortality

In 1900 forty-five died of bronchitis, while only thirty died of it in 1907; paralysis was reduced from twenty-five to nineteen; peritonitis from fifteen to seven; tuberculosis from 180 to 158, per 100,000 population. We are learning to take care of persons who have tuberculosis so that they do not infect other people. We are learning how to cure tuberculosis by sending the patients out of doors, so not so many are dying of it. Pneumonia dropped from 180 to only 120 in seven years; enteritis fell from 133 to 116. We are learning to sterilize milk, so there are not so many babies dying, and that is the reason we save lives from inflammation of the bowels. Typhoid fever deaths dropped from thirty-five to



MAJOR W. O. OWEN, DR. HORACE FLETCHER, SENATOR ROBT. L. OWEN

only thirty. We are learning to keep our water clean. In the old days a man built a little cottage, dug two holes in the ground behind the cottage; into one of these holes he put all kinds of filth, and out of the other he drew the water which the family drank. What went into one hole came out of the other. We are now learning to take better care to see that the water is pure.

These are diseases in which there has been a decreasing mortality; it would be well if we could stop with these acute disease; but that is not the whole story. When we come to look at the record of chronic diseases,—heart disease, Bright's disease, apoplexy, cancer, diabetes, appendicitis, chronic debility, endocarditis, and maladies of this sort,—we find that there is an enormous increase instead of a decrease. In fact, the mortality from chronic diseases has doubled in thirty years. See what that would be in a century. Suppose it doubles again in thirty years more, that would be quadrupled in sixty years; and in ninety years the mortality would become eight times what it was at the beginning! I do not know of any reason why this should not go right on at the same ratio, as the causes of these maladies are certainly multiplying.

In 1900 heart disease carried off 111 persons in the United States; and in 1907, 141 people died of that trouble, an increase of twenty-seven per cent in seven years. At that rate, it would not be very long before it would double its record. Victims of Bright's disease increased from eighty-six to one hundred and five, an increase of eighteen per cent in seven years. Apoplexy increased eleven per cent; cancer fifteen per cent; cirrhosis of the liver twenty-two per cent; diabetes forty-three per cent, all in seven years,—the latter disease increased nearly one-half in seven years. Appendicitis, notwithstanding the increase of knowledge and skill in operating, and the fact that we have learned to master this disease to a considerable extent, has increased fifteen per cent in seven years.

General Debility Has Increased

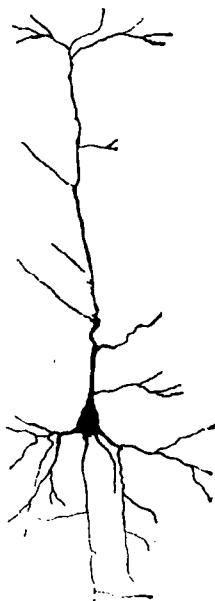
thirty-seven per cent; endocarditis twenty per cent. Now, if we should go on for fifty years, increasing at the same rate as the first seven years of the century, the percentage of increase would be almost 200 for heart disease, and more than 300 for diabetes, and 110 for appendicitis, 270 for general debility. So, on the whole, it is not a very pleasant picture to contemplate; indeed, it is an alarming outlook that is presented to us.

I find in studying the statistics of cancer for the last few decades that cancer has increased 800 per cent in fifty years. The number of deaths per 100,000 sixty years ago was only nine; to-day it is seventy-four—more than eight times as many. In the older parts of the country, in New England, for example, Bright's disease and other chronic maladies are increasing with far greater rapidity than in any other part of the United States or of the world. For instance, in Massachusetts the increase of Bright's disease victims in thirty years has been 105 per cent; apoplexy, 135 per cent; throughout the United States apoplexy increased eighty-four per cent. In Chicago, disease of the kidneys has increased 267 per

cent. That means that 267 people die to-day of kidney trouble in Chicago where 100 died thirty years ago. A gentleman asked me the other day what I thought about Chicago as a climate for a person suffering from Bright's disease. I was obliged to tell him that it is not a matter of climate, but that the trouble is with the habits of the people. Chicago is not an unhealthy city, so far as climate is concerned. It has lots of pure air blowing off the lake and off the prairies all the while; but there are those great slaughter-houses there.

It Would Make Your Blood Curdle

to hear men who work in the slaughtering and meat business tell the things they see there in relation to the condition of diseased



meats that are placed on the market. That is one reason, perhaps, why kidney disease is so frequent in Chicago. But in the whole registration area of the United States, kidney disease has increased 131 per cent; that is, 231 people die of kidney disease in the United States to-day where 100 people died thirty years ago. Almost two people are dying of apoplexy now where one died of it thirty years ago. So the chances of a man dying of apoplexy are twice as great to-day as a generation ago.

I shall mention some of the principal causes of this condition of things, about which I think everybody ought to be informed. One is a horrible disease of impurity, the name of which is almost unmentionable in polite society. Another is alcohol. More than one-third of all the cases of insanity in America are due to these two causes—alcohol and impurity. Notwithstanding all the steps that have been taken in behalf of prohibition, the amount of whiskey used per capita has more than doubled. This great evil is increasing in spite of all the efforts that have been made to check it.

is located, but you can not quite make that contact, you can not get the information you want.

The Healthy Nerve Cell Looks Like a Tree

with branches. That is called a Purkinje cell, and it is found in a certain part of the brain. But in the brain of a man who has used alcohol, these little twigs have been destroyed. His cells look like a tree that has been wrecked by a hurricane. The leaves and twigs are all torn off. That man's memory is gone because his thinking machine is so much impaired. His nerve cells are destroyed. And it is not only alcohol that does this, but the poisons of infectious diseases will do it. This horrible scourge is the penalty of impurity, of immorality, and is one reason why so many men in the cities are going to the insane asylums, because of paresis or general paralysis. As high as twenty-five per cent of all cases in some asylums, especially those near cities, are due to general paralysis, and that is caused chiefly by the use of alcohol and by other forms of dissipation. Tobacco enters into the list. Tobacco is one of the greatest scourges of the world, and it is one of the strangest things in the world that civilized people should be using it.

HEALTH, PHYSICAL & POLITICAL

(Continued from page one)

in politics, but which harks back to Jefferson. And since he has been in the Senate he has made his mark upon history, by his devotion to the fundamental principles of vital economics which it is the duty of the government to foster and to promote. He will speak to you about healthy politics.

HON. ROBERT L. OWEN: Here [indicating Mr. Fletcher] is a man of over sixty years, who can ride a bicycle 200 miles to-day with a trifle of food, and to-morrow morning ride fifty miles more before breakfast without feeling fatigue. No man who realizes the truth of that will fail to recognize the discovery of a truth worthy to be received and worthy to be taught to all the world. I rejoice at the promised opportunity to help serve the people of this country by joining in giving the widest publicity to the greatest physiological truth, perhaps, ever sufficiently made manifest and demonstrated by man. It has been demonstrated in this institution. Here the employees, who live upon a low-protein diet, and who are careful in their food, have twice shown a physical endurance in advance of the best athletes of Yale. What higher honor or glory could rest on an institution than to be capable of such results?

I Grew up in an Atmosphere of Doctors,

and I discovered long ago a singular thing—that the older the doctor is and the more he knows, the less medicine he gives. My attention was first called to the neglect of human life in a far-reaching and important way by my brother, who was a surgeon in the United States Army, and who ten years or more ago delivered an address before a medical society at Cincinnati pointing out the manner in which the chosen and picked

young men of our country, the flower of the land, in the Spanish war, were sent to their death, not by Spanish bullets, not in warfare with the enemy, but by typhoid fever at Chickamauga. Nearly a thousand of them died in that camp—more than were killed with all the Spanish bullets—from the ignorance of the administration which permitted the cesspool of the camp to be side by side with the tables upon which food was served. And the flies flew between the cesspool and the tables. What wonder those young men died? Was it a dispensation of Providence? or was it the lamentable ignorance of man? The time has come when a repetition of that kind of thing ought no longer to be possible.

And so, at the first convenient opportunity, I introduced

A Bill Providing for a Department of Health

with a secretary at the head of it, which should co-ordinate all the different health activities of the United States Government into one department under the head of a man trained and learned in all questions pertaining to health. Most of our people die as children, neglected, exposed, poorly treated by parents who are uninformed, who are unlearned. Would you believe that any human being of sound sense, of good conscience, would violently oppose a department of health that had for its purpose the preservation of the life and of the efficiency of the American people? And yet, commercialism is so rampant in the United States that it immediately organized and filled the press with paid advertisements denouncing the organization of a department of health as the promotion of a doctors' trust. The purpose of the department is to do away with sickness and with the need of doctors, and to do away with their compensation. Who ever heard of a trust working to do away with its own compensation? God bless the trust that follows that line of humanitarianism.

But there is a duty to perform by the people of the United States in this connection, and each of you has his part in the performance of that duty. It does not rest upon one man or another man; it rests upon all citizens alike.

In reply to the question so often asked,

"Why Should the State Concern Itself in this matter?" let me tell you of an incident related by Mr. Hester, of Indiana. There was a young mother who had three children. And she began to notice that the crying of the children annoyed her. She had not noticed it before, but she was nervous and found it wearisome, and she found that she was not fresh to respond to their wants as she had been, and she went to the doctor. The doctor gave her a prescription in Latin; there was water, alcohol, gentian, and one or two other things, and it acted as a tonic for a little while, and it took what remaining strength she had. All at once she felt a keen pain in her breast, and she put a handkerchief to her mouth and it was covered with blood. She had a hemorrhage. She wrote a letter to the secretary of the board of health of the State of Indiana: "My dear Sir: I am a young woman with three children. I would like to raise them for the

State of Indiana, and make good citizens of them, and I don't want to die now. Could you tell me what to do, or where to go?" And he replied, very truthfully, that the State of Indiana made no provision of that kind; he could not tell her where to go nor what to do; but that if she died, the State of Indiana had made provision to take care of her children.

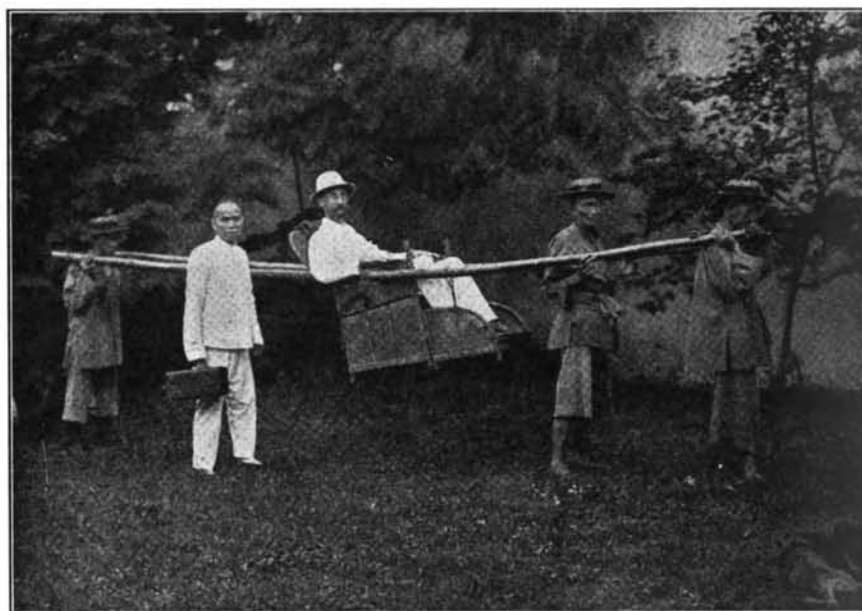
A fat hog squealed out in the barnyard, and the hired man reported, "He has the hog cholera." He telegraphed to the State department, who sent him a doctor of veterinary science, with a syringe in one hand and a little bottle of serum in the other, and the hog got well. Moral: Be a hog and worth saving.

There is a Combat on

for the next session of Congress on this question of a department of health. A bureau of health is not a department of health. We

undertook to, and did, suppress the truth, and circulated a report to the effect that there was no bubonic plague in California or at San Francisco. The consequence has been that the plague was not easily stamped out. It persisted on the coast; it infected rats and ground squirrels, and occasionally a human being died of it. But after ten years, when there was no danger, and when it did no longer exist, the marine hospital service called for an appropriation of \$975,000 in one year to suppress a disease that did not exist.

A department with a secretary at the head of it would not be so easily submerged by the commercial interest. The head of the department would have sufficient dignity and power to stand for the rights of men rather than for the demands of property. I hope that each of you—and you represent, perhaps, every State in the Union—will do your part with the members of the lower house



A DOCTOR TRAVELING IN CHINA

have had a bureau of health for a long time, and I run no risk in saying that you do not know anything about it. Who do you suppose is at the head of the bureau of health of the United States government? You do not know that, I will venture to say; but I will tell you—it is the Secretary of the Treasury. And the bureau of health grew up as the marine hospital service to take care of sick sailors at our ports. The reason that a bureau is not sufficient is because a bureau can be dominated by commercial interests, and commercial interests have control of the departments of the United States government. I will give you an example of that.

When they had bubonic plague in San Francisco, which you know is transmitted by the ordinary rat through the common flea that inhabits the rat or other vermin, it broke out in the Chinese quarter, and it was found that about eighteen people had died with it. It was obvious that if San Francisco was quarantined it would interfere with the commerce of that port. The consequence was that the California authorities

of Congress and with the Senators representing your several States, asking them in your own name to stand by a department of health.

Upon conclusive proof that can not be denied, it has been demonstrated that we lose in the United States 600,000 people annually from preventable disease; and these lives could be saved if we had a proper system of public health engaged in instructing the people. Now, it may be impossible to establish a department of health until we have political health in the United States. And on that I would like to say a word or two.

(To be continued)

GRAND TRUNK RAILWAY SYSTEM

Changes Time September 25th

On D. & M. Division, daily trains between Detroit and Grand Haven, known as Steamboat Express trains, will be discontinued, and Buffet Parlor Cars transferred to trains Nos. 11 and 12. Slight changes on other divisions. Particulars at any Grand Trunk ticket office.

The Battle Creek Idea

PUBLISHED WEEKLY AT
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Six Months	- - - -	.50
Three Months	- - - -	.25
Per Copy	- - - -	.02

VOL. III SEPTEMBER 23, 1910 No. 42

A REPORT FROM "PLUNGER" WALTON

ABOUT ten years ago a very sick looking man hobbled into the lobby of the Sanitarium. He had been for many years a victim of rheumatism. The new patient proved to be "Plunger" Walton, the builder of the famous Hotel Walton of Philadelphia. In six weeks the rheumatic patient left the Sanitarium without his crutches and without any symptom of rheumatism or any other illness.

In a recent letter to the BATTLE CREEK IDEA Mr. Walton reports himself as in perfect health, and adds:

"I have told hundreds of people that I would not take a million dollars apiece for the forty-two days' experience I had at your place. I have been to all the cures and sanitariums of Europe and the Continent and most all in America, but Battle Creek is the only place to get cured and to learn how to live scientifically and keep well. I now think it is a disgrace for any one to be sick. If people who are sick will go to your place and learn how to live, and get some will-power and keep busy in getting well, they will get well, and then if they have any brains they will keep well. Sickness is a sin and a disgrace to humanity.

"I eat my first meal about noon, and eat very little at six in the evening. I drink nothing but good water, and this not at my meals. I am out to beat the record, which I believe was 969 years. If I do not beat it, it will not be my fault. The 4th verse of the 21st chapter of Revelation says it is only a question of time when 'Death' will be defeated. I suppose you will think by this letter that I am a very advanced 'thinker,' but the sun is shining brighter, the sky is getting bluer, and the grass growing greener every day, and the world is more beautiful, and I believe is getting better every day. With a few more Roosevelts, Governor Hugheses, and Tafts, and less crooks each year, life will be worth living for 'ever and ever.'"

WORK OF THE FOOD DISPENSARY

THE food that is removed from the Sanitarium tables in good form is carefully sorted and distributed in the city for those who are in more or less dependent circumstances. This work is under the direction of Mr. L. C. Leake, who has handed in the following summary for the past three years:

The following is a summary of the work done at the Food Dispensary connected with the Sanitarium for the thirty-six months from Aug. 26, 1907, to Aug. 26, 1910:

Number of baskets of food given away	19,008
Number of baskets delivered to homes of poor	720
Number of visits to homes of poor	498
Number of meals furnished at the food room	580
Cash given to help families	\$81.00
Fuel furnished to the poor	\$20.85
Garments given away	892
Barrels of zwieback	49
Barrels of granose and rice biscuit (broken)	25
Cans of protose (3 lb.) given away	175
Barrels of flake foods	11
Pieces of furniture	68
Pieces of carpet and matting	70
Barrels of bread, cut and broken, about	1,000

The dispensing of food in the past has been a blessing to many worthy ones. We have come to the rescue of a number of destitute families, and we hope in the future to be used more abundantly than we have in the past in doing good in the Lord's name.

which the body of man was made, was created, he was compelled to do the right thing perforce. The foods were found in a form which made it necessary to chew, to transform the sugar for the body in the laboratory of the mouth instead of in the refinery of commerce; and so it was with all foods; and as evidence of the fact that under those conditions man was healthy and long lived, we find among the anthropological remains of the prehistoric periods, skeletons which have all the appearance of being as old as Methuselah and yet with thirty-two teeth in the head, well worn, but without decay. And there is no better evidence in the world of good health than good teeth. The reason why I presume to teach you how to eat, and why it is necessary that all be taught, is because cooking, aggressive hospitality, a plethora of supply, and complicated mixtures have come in; the spices of Ceylon have been brought up to mix with the flour of Minnesota, until it has come into such a state of confusion that it requires the most learned,



THE BATTLE CREEK SANITARIUM IN 1878

HEALTH BY MASTICATION

(Continued from page one)

the thirty feet of the alimentary canal.

Now, it may be said that it is quite a ridiculous thing for a person, even of my respectable age, to appear before an intelligent audience like this and presume to teach them how to eat. Mr. Edison might come here and speak learnedly on electricity, and we would take it from him, because he has made a specialty of that and we have not; but every one of us have had, according to our years, as much experience in eating as anybody else,

And We Ought to Know;

but we do not know about it, and we know less about it than we do about anything else of vital interest to us, because it has all happened so very near and so directly under our noses that we could not see what we were doing. I don't believe anybody here ever confronts a looking-glass in order to observe his manners of eating. And at the same time it is not polite to watch each other; consequently people do their bolting unconsciously of the bad manners of each other.

I am not here to upbraid, because we are all in the same boat; but I do want to say that there is a reason why it is not presumptuous for me to speak to you about this subject; and that is, under the conditions for

the most patient, the most discriminating appetite to protect us against the menace of our luxuries; and that is why we are teaching and studying the fine art of eating.

But the Beauty of It is

that when we conform to the natural requirements in any respect, it does not matter what it is, nature rewards us for it. It is a prevalent thought that it is necessary to take a long time in the proper mastication of foods. That is not so. During the time I was under examination at Yale, some six years ago, when I was doing the stunts of the 'varsity crew in the gymnasium and doubling them outside for my own satisfaction, and doing my laboratory work, I never took more than twenty-eight minutes a day, at my two meals, from twelve to fourteen minutes each, and at the same time kept my weight and my full strength. It never took me more than twenty-eight minutes a day, and hardly that; and when some people say it takes them hours and hours and hours to eat their food, they are deceiving you, because taste is not on tap more than forty-five or fifty or sixty minutes a day. I found when I came to study the subject that instead of being able to use twenty hours a day, as Mr. Edison does in the study of electricity, there were only two or three periods during the day

when I could study it, and consequently it has taken me ten years instead of a few months.

I Must Define the Appetite,

because there are so many people who do not realize what appetite is. Let me tell you that it is never to be found below the guillotine line. Any of these sensations you have felt below the mouth—the all-goneness in the stomach, the craving for food, the faintness, are not symptoms of hunger, but of the reverse. They are symptoms of a former gorge or some kind of indiscretion. They are a pathological procedure, and not a true indication of appetite. But when you have a watering of the mouth, at the thought or sight or smell of food, you may know you have got a good appetite, and you can approach food with true reverence.

Digestion is made up of two euphonic departments. It is a question of the mental and the dental, with the dental entirely subservient to the mental; and it is the use you make of taste, and your mind while the food is being digested that gives you good digestion. You may have performed the mechanical part properly, and you may have swallowed the food and it may have entered into the system in perfectly good form, but at the same time beware of your mental states while that food is being digested. If you do anything but love everybody and everything while that food is being digested, you are poisoning yourself; and that is evidenced not only by the experiments of Professor Pawlow, but by those of Doctor Cannon, of the University of Harvard Medical School, whereby with the use of the X-ray it was found that in an animal in a calm and contented state of mind the digestion of food went on rhythmically; and he used the X-ray for the purpose. Cats were used because they are amenable to the test. But the moment the cat was irritated in any way the whole thing would stop dead; the muscles would relax, the glands would cease to flow and to exude the digestive agents.

The Ethics of Digestion

If at the table you have a bitter discussion about politics or religion, or you hate anybody or think of anybody you don't like, or envy anybody,—any form of depressing the mind,—you are interfering with digestion, because nature will not work except with love, charity, hope—the most important of those beautiful characteristics which we can cultivate.

Suppose you are under training to meet some opponent; if you want to be sure you are going to win, you have to love him in the meantime, or your digestion will go wrong and you will be out of training. I put it in that way not because it is a question of ethics, but it is a question of good business sense for you to cultivate health.

ARRIVALS

THE list of arrivals at the Battle Creek Sanitarium for the week ending September 18 is as follows: R. Moore, Mo.; A. W. Reed and wife, Ind.; W. E. Leyenbell, Ind.; J. H. Briscoe, Mo.; Mrs. E. D. Lysle, Kans.; Mrs. R. E. Tulip, Mich.; Mr. and Mrs. Geo. O. Robinson, Detroit; Mr. and Mrs. B. C. Van



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Special daylight trips between Detroit and Cleveland during July and August. Send 2-cent stamp for illustrated pamphlet and Great Lakes map.

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P. H. McMILLAN, PRES. **A. A. SCHANTZ, GEN. MGR.**

Detroit & Cleveland Nav. Co.

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The Grand Trunk Railway System

Sunday, Sept. 25th, 1910

DETROIT \$1.75

LANSING 70 Cts.

SAGINAW or BAY CITY \$1.65

Special train leaves at 6:10 A. M. One and one-half fare to intermediate points.

L. J. BUSH, Pass'r Agt.

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— VIA —

The Grand Trunk Railway System

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Montreal, P. Q.	- \$20.00	New York, N. Y.	\$25.50
Quebec, P. Q.	- - 24.00	Boston, Mass.	- 25.60
Ottawa, Ont.	- - 20.00	Portland, Me.	- 27.35
St. Johns, N. B.	- 29.50	Atlantic City, N. J.	25.70

On sale daily until Sept. 30th. Return limit 30 days. Tickets to or via Montreal routed via St. Lawrence River at a small additional rate. Also have proportionally low rates to several other Canadian and New England points. Please ask for full particulars.

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News and Personals

Dr. Maude Vollmer, dietitian for the Kellogg Food Company, has returned from an extended visit to California and the West.

Dr. F. G. Kolb, of Paterson, N. J., made a brief visit to the Sanitarium last week. Doctor Kolb is an associate of Doctor Mills-paugh, the celebrated specialist in nervous diseases.

Among the recent departures from the Sanitarium, we note that of Miss Josephine Hope, of Africa. Her station was visited by ex-President Roosevelt in his recent African trip, and its work received his hearty approval and commendation.

Dr. Julia Carpenter and her sister, Dr. Lillie Carpenter, of Cincinnati, have been spending a few days at the Sanitarium in rest and renewing old acquaintanceships. These ladies are staunch friends of the Sanitarium and as such are always welcome to our family.

We are looking forward to a special edition of the BATTLE CREEK IDEA to be issued very shortly, containing matter of particular value and importance. It will form one of the regular numbers and at the same time will be sent out to 100,000 of the old friends and new friends of the Sanitarium.

Dr. W. F. Martin, a prominent Sanitarium physician, is in the East, being engaged in visiting hospitals and taking observations and lectures in New York and other Eastern medical circles. The medical profession is a progressive one, and especially so in these latter days. The doctor who does not keep on the move in advance is sure to find himself a back number very soon.

Mr. and Mrs. R. C. Ricker, of China, have been for some time patients at the Sanitarium. Mr. Ricker has been engaged in educational and evangelistic work in China. He has now gone to Drew Theological Seminary in New Jersey, where he will study for the winter, and hopes to return with his wife to China in the early spring.

Gov. W. S. Stubbs, of Kansas, recently made a visit to the Sanitarium, leaving one of his daughters for treatment. The impressions received by the Governor were so favorable that upon returning home he sent his wife and a second daughter for rest and treatment, the mother and two daughters now being guests at the Sanitarium.

Senator Robert L. Owen, of Washington, senator from Oklahoma, addressed a large audience in the Sanitarium gymnasium on Tuesday evening, the 20th instant, on "Good Government," a subject on which the Senator is especially well versed, and to secure which his energies in the capital city are largely given.

Mrs. McElroy, a popular society lady of Kansas City, who passed through a serious operation upon her stomach, is, we are glad to say, making a most satisfactory recovery. Her daily progress being most marked, with every indication that she will soon be able to return to her friends in satisfactory health.

\$9.00

BUFFALO, N. Y. and RETURN

Tuesday September 27th 1910

— VIA —

The Grand Trunk Railway System

Tickets on sale for all trains, Sept. 27th. Return limit 30 days. Please ask for full particulars.

L. J. BUSH, Pass. Agent.

\$3.25

SAGINAW, and RETURN

— VIA —

The Grand Trunk Railway System

Tickets on Sale for all trains Sept. 20th. Return limit Sept. 26th. Please ask for particulars.

L. J. BUSH, Pass'r Agt.

Dr. R. H. Harris, assistant surgeon at the Sanitarium and Registrar of the Medical College, and M. W. Wentworth, of the business department, are in attendance upon the annual meeting of the American Hospital Association in St. Louis, held from the 20th to the 23d inst., inclusive. Following this meeting they will proceed further south upon matters of business connected with the institution, expecting to be absent about ten days.

The new class of the Sanitarium School of Domestic Science and Household Economics was given a reception at the residence of Doctor Kellogg on Tuesday evening, and a very pleasant occasion was spent. The new class is composed of young people of unusual ability and brightness. So far the freshman class numbers fifteen, and others are expected. Several are taking the second-year course, and the year's work promises to be the best and most interesting of any in the history of the school.

Dr. Benton Colver, pathologist of the Sanitarium, curator of the museum, and for several years physician in charge of the Sanitarium dispensary, will spend the winter in Philadelphia taking post-graduate study at the University of Pennsylvania. Doctor Colver will be greatly missed, not only by his colleagues, but by the numerous patients who have been the recipients of his professional services. He will receive a cordial welcome when he returns. Mrs. Colver will join her husband in October.

The Sanitarium W. C. T. U. met at the home of Mrs. S. E. Barnhart on the 13th inst. The vice-president, Mrs. Emmons, presided over the meeting. The Union lost its highly esteemed and capable president by the recent death of Mrs. Dr. Read, and the early part of this meeting, being the first since her death, was devoted to a memorial service. A poem written by Mrs. Lake for the occasion was read. The latter part of the meeting was occupied with business, and plans for the winter's work were taken up. The attendance and interest were very good.

Among the patients at the Sanitarium are

Mr. and Mrs. M. C. Treat, of Washington, Pa. Mr. Treat is well known for his many benefactions to the missionary cause, one of the most recent being the gift of a fine dormitory building to Union College, Hankow, China. This building is named for Jos. S. Adams, who has done noble work in China for the past thirty years, and whose son is here to enter the freshman class of the American Medical Missionary College. In the recent visit of Mr. and Mrs. Treat to China, India and other Oriental countries, they found much to stimulate their interest in the splendid work being done at the various mission stations.

Low One-Way Rates TO PACIFIC COAST POINTS

VIA

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Tickets on sale to California, Nevada, Arizona, Mexico, Aug. 25 to Sept. 9th, also Oct. 1st to Oct. 15th. To Colorado, Utah, Wyoming, Aug. 25th to Sept. 9th; also Sept. 15th to Oct. 15th. To Montana, Idaho, Washington, Oregon and Canadian Northwest, Sept. 15th to Oct. 15th. Stop-overs allowed at certain points. Full information gladly given.

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A CLASS DEMONSTRATION

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COST	Tuition	\$50.00 per year
	Room (with room-mate)	1.00 per week
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A SPECIAL FEATURE of this School is that students are given an opportunity to meet a large part of their expenses by employment of a character that will aid them in their training.

Address all inquiries to

The Sanitarium School of Health and Household Economics,

LENNA F. COOPER, Director,
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The Battle Creek Sanitarium School of Health and Household Economics furnishes two courses in Domestic Science, based upon the principles of Health and Hygiene as established by the most recent findings of scientific investigation.

THE ONE-YEAR COURSE

Is especially designed for matrons and housekeepers, and those who desire education and training in Cookery, Dietetics, Chemistry, Home Nursing, Household Economics, and kindred subjects.

THE TWO-YEAR COURSE

This course gives necessary instruction and training to prepare those who take it to fill positions as dietitians, lecturers, and demonstrators.

Details of courses are given *in extenso* in the Annual Announcement, which will be sent on application.

The delightful autumn weather that we are now enjoying brings out a large number of patients each afternoon upon the lawn, where they recline in easy chairs in the bright sunshine. This is one of the most favorable seasons of the year we have for Sanitarium work, and those who have been hesitating to come in our rush season, are now putting in their appearance, and the work of the Sanitarium is going forward with unusual success, producing remarkable results in restoration to health and strength. The dining-rooms are still filled to their utmost capacity, and a large number of guests are seated in the annex.

The usual Christian Endeavor meeting was held in the gymnasium on last Friday evening and was conducted by Dr. M. A. Mortenson. Every one reported having enjoyed a most excellent meeting, the thoughts brought out by the leader being especially helpful. A special meeting will be held on next Friday evening, the subject being "Home Missions." A variety of speakers have been selected and the medical students will take a prominent part in the exercises, which will be held in the main parlor at the close of the lobby song service. The Society wishes to extend to patients and to the Sanitarium family in general, a cordial invitation to attend its meetings.

Mrs. Fanny E. Dowkontt and her daughter Marian arrived at the Sanitarium on the 16th, from the Berkshire Hills in Massachusetts. Mrs. Dowkontt is connected with the medical missionary work carried on under the auspices of the Sanitarium and is in charge of a missionary home in Massachusetts which is open during the summer. A large number of missionaries on furlough resort there for rest and quiet during the period when the Sanitarium is most crowded with other guests. At other seasons the home in the East is closed and Mrs. Dowkontt looks after the interests of missionary guests in the Sanitarium. She will also act as social matron at the Sanitarium. We are all glad to welcome her and her daughter back, and she reports a most prosperous and pleasant season with a large number of guests at the Mountain Rest Home.

On the evening of the 15th instant the Sanitarium tendered to the members of the Battle Creek Community Club a banquet on the occasion of the club having secured the gift of over fifty acres of land, situated to the east of the Sanitarium, for the purpose of a public park. This land extends north and south along the valley through which a spring brook runs, and includes two or three spring-water lakes. This land is ideal for park purposes, and when the plans of the Community Club are carried out, it will furnish one of the most beautiful resorts and breathing places to be found in any of our Michigan cities. It is the intention to fit up a portion of the park as a playground for children, and a swimming pool for children and adults will be included. The banquet was attended by over fifty prominent citizens and was addressed by Senator Robert L. Owen, Washington, Dr. Horace Fletcher, Hon. E. C. Nichols, Dr. J. H. Kellogg, and the sec-

retary of the club, H. Askowith. Mr. W. R. Wooden, of this city, filled the place of toastmaster very acceptably.

Dr. Jas. T. Case, of the Sanitarium faculty, is spending a month in New York and Philadelphia in the interest of the X-ray department of the institution. The wonderful X-rays are becoming daily a more and more important factor in medical practice, not only in the treatment of disease, but in the diagnosis of obscure internal maladies, especially in relation to the heart, lungs, stomach, liver, kidneys and intestines, and particularly the bones. New progress is constantly being made through invention and discovery, and the subject has already developed so large and complicated a technique as to have become a specialty in both medicine and surgery. Doctor Case has already done much highly creditable work as an X-ray specialist, and with the thorough review which he is making of the work of others and the new appliances which are being added to this department, will be prepared to place the X-ray work of the institution on a level with the best that is being done in this line.

Dr. Chas. C. Walker, of Siam, gave a talk on that country to an audience in the main parlor on Tuesday afternoon. He told many interesting things about the people and the wonderful progress being made there in the reception of Western ideas of education, government, and army and navy affairs. The policy of the King of Siam has been to put each department under a competent foreigner. Thus education has been under the direction of an Englishman, the navy under a Dane, the army, until recently, under a German, but now the German leader has been dismissed and the army is entirely managed by the Siamese. He told of an unusual enterprise for the king of a country, namely,

the building and management of large numbers of ideal tenement houses, and made some of his audience think that the good king of Siam certainly deserved the title of "Father of his people." Doctor Walker spoke in glowing terms of his hospital work, where many important operations have been performed that have won for his work the respect and admiration of the Siamese.

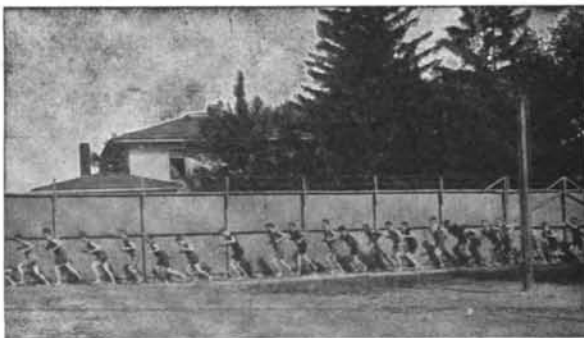
On the evening of the 19th instant the Christian Endeavor Society gave a farewell reception to the medical students at Doctor Kellogg's residence. The first part of the evening was spent in a social way, the conversation being interspersed with singing and other music. Everybody tried to make every other body comfortable and happy. The result was a delightful evening spent by the large company, consisting of members of the Sanitarium helpers' family and students. The event was brought to a conclusion by a few well-chosen remarks by Dr. J. H. Kellogg, in which he reviewed briefly the work and principles for which the institution stands, and referred effectually to the good that was being accomplished in relieving sickness and suffering. Doctor Kellogg also spoke feelingly of the Medical Missionary College which, during its fourteen years of existence, has been an object of his special care and labor, and of the circumstances which led to the merging of the College with the medical department of the Illinois State University. The association of the medical students with the Sanitarium family was touchingly referred to, and the earnest hope was expressed that these relations might be continued, and that the knowledge and experience gained by the students during their stay here might abide with them in their future careers. The opinion was generally expressed that the evening had been one of the most entertaining and profitable that has been experienced by the Sanitarium family.

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A Two-Years Course. Each year comprises thirty-five weeks and an eight-weeks Summer Course.

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The Equipment is complete in gymnasium, laboratories, and swimming pools.

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Unusual opportunities are given for earning money toward expenses.

For full particulars address:

WM. W. HASTINGS, DEAN,

SANITARIUM, Battle Creek, Mich.

THE BATTLE CREEK IDEA



Vol. III No. 43

BATTLE CREEK, MICH., SEPTEMBER 30, 1910

Price 2 Cents

Reynaud's Disease

Described, Diagnosed and Prescribed in an Article by Dr. W. H. Riley of the Sanitarium Staff

THE large number of people who are constantly coming to the Sanitarium for treatment for various chronic disorders offer a large field to the physicians for observation, for acquiring skill in diagnosing and treating many chronic disorders. Thus many rare forms of disease are seen, some of which would be scarcely seen in a lifetime by the practitioner in private practice. Cases of this kind find special advantages in an institution like the Sanitarium for getting the benefit of large experience and special methods of treatment.

One of these rare affections is described below and illustrates quite a number of cases of this disorder which have been successfully treated at the Battle Creek Sanitarium.

In the year 1862 Doctor Reynaud described a peculiar disorder of the vasomotor, trophic, and sensory nerves of the extremities which produced a peculiar group of symptoms, and since he was the first to describe this peculiar condition, his name has been attached to it as the name of the disease.

The disorder is quite rare, and a report of cases of this kind in medical circles is usually of considerable interest.

Causes

Cases of this disease are quite often seen in infants and in young children, as well as in middle life. In the adult it occurs usually between the ages of twenty and forty-five years. More cases are seen in the female

(Continued on page three)

Sundry Questions

Asked by Patients and Answered by Dr. J. H. Kellogg in His Monday Evening Lecture

Q. Is beef tea objectionable? If so, why?
A. Beef tea is objectionable, first of all, because it is not a food. Secondly, because it is a poison. An eminent French physician said recently that beef tea is a veritable solution of poisons. The food value of beef tea is very slight. An ounce contains only three calories of food. An ounce of milk has twenty-one calories. Two tablespoonfuls of milk have seven times as much food value as the same quantity of beef tea. Two

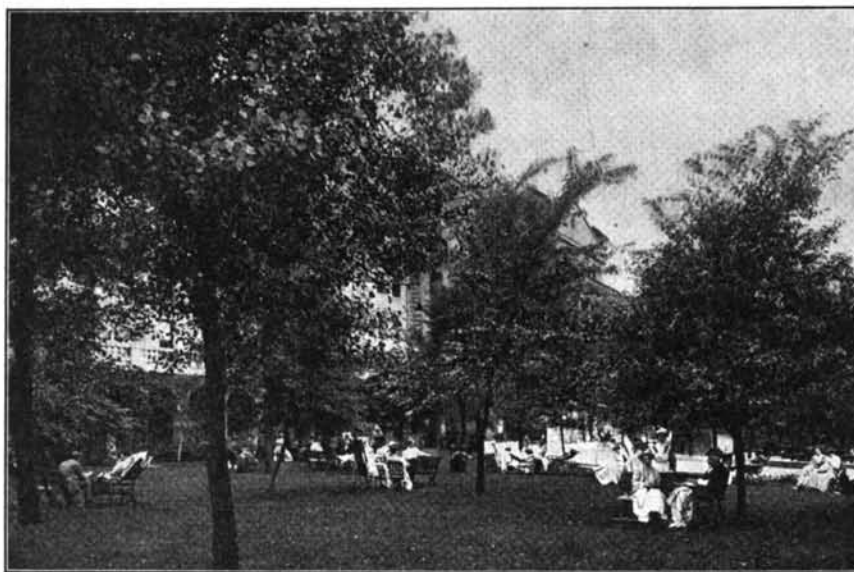
The New Hygiene

As Set Forth in a Sanitarium Lecture Sept. 1, 1910, by J. H. Kellogg, M. D.—Aims at Habits of the Individual

(Concluded)

ONE of the most insidious causes of increasing mortality from chronic disease which is at work at the present time, is the degeneracy of mothers, their incapacity to care for their children. Professor Bunge, of Basle, has made a very interesting study of this point, and has called attention to the fact that the mortality of breast-fed infants who are properly nourished during the first year is only seven per cent. That is surely

enough; but the mortality of bottle-fed infants is fifty per cent, or seven times as great. In New England almost half the mothers are unable to nurse their children. At the present time there are doctors who make a specialty of that subject, and prescribing for the feeding of babies on bottles; and there are great laboratories in our large cities devoted to the preparation of milk to be fed to babies, and there are great commercial enterprises for the purpose of manufacturing food for bottle-fed babies. The maternal font has dried up, and it is because of the degeneracy of woman. A girl baby that is bottle-fed will have to feed her children with a bottle. She does not get a real, normal development. Civilization has made



ON THE SANITARIUM LAWN IN AUTUMN

tablespoonfuls of milk furnish as much nourishment as a tumblerful of beef tea. It contains also a large amount of poison which is exactly the same as that found in urine. The analysis of beef tea is analogous entirely to that of urine! Beef tea is worthless and harmful stuff.

Q. What is the best thing to do to purify the blood?

A. Keep poisons out of the blood and it

(Continued on page six)

A Wet Nurse of the Cow

for the whole family, and the cow can not furnish the kind of nourishment that is needed to start a human being off in life as it should be started.

A graphic presentation of the increased

mortality from certain chronic diseases has been prepared by the president of the Provident Life Insurance Company of New York City. For instance, in Chicago from 1880 to 1906 there was an increase of 129 per cent in kidney diseases, and an increase of heart disease of fifty-seven per cent between 1880 and 1908. The natural result of this is that the mortality of persons advanced in years is increasing, because chronic diseases pertain chiefly to people of advanced life.

It has been found that the number of people dying from old age is diminishing. It diminished from fifty to thirty-five per cent per 100,000 in seven years. The reason for that is that there are not so many left to die of old age. It is because they do not live to be old enough so they can die of old age. A man has to live until he is seventy-five or eighty before he dies of old age. In Massachusetts it has been found there is a great decrease in mortality between the ages of twenty and thirty—forty-one per cent in twenty-seven years. Between thirty and forty, the decrease has been fifteen per cent in twenty-seven years. Between forty and fifty, however, the situation is reversed. There has been a steady increase in mortality after the age of forty years since 1880 up to 1907, the increase amounting to thirty-four per cent; between fifty and sixty, twenty-four per cent, and between sixty and seventy, fifty-eight per cent. There has been a decrease in the mortality under forty, while there has been a great increase in the mortality over forty; and this increase in chronic diseases has pretty nearly balanced the decreased mortality from acute diseases; so the increase in average longevity is small. There would have been a very great increase if it had not been for the enormous increase of mortality from chronic diseases.

Heredity

Unquestionably, one reason for this increased mortality from chronic disease is found in heredity. It has been discovered in the last few years that Mendel's law of heredity is applicable to human beings and animals as well as to plants. Mendel was a monk, who lived about one hundred and fifty years ago, and he spent a great part of his life in studying heredity. He worked out the law of heredity which is illustrated by the following example: We will say a black-eyed man and a blue-eyed woman are married, and all their children will have brown eyes. If each one of these children marries a brown-eyed partner, and each pair has four children, according to this law of heredity, on the average there would be one black-eyed child, two brown-eyed children, and one blue-eyed child in each four. Now, suppose that this blue-eyed mother is hysterical, and has a tendency toward insanity. Then three-quarters of all the progeny in the third generation would have more or less of that tendency. A fourth of them all would be likely to be insane, according to that law.

Now, look at it as actually worked out in a family. In a neurotic family cousins married. One of these cousins had a brother who was insane. The cousin seemed as well as anybody, but she had some of that same insane tendency in her. The results of that union were: a nervous person, a paralytic, two suicides, insane, demented, secluded, pe-

culiar and erratic. Heredity is an unerring bookkeeper that never makes a mistake, never loses sight of a single factor. This law applies to other things besides nervous troubles.

The State of Indiana has a law which makes it impossible for diseased people to intermarry, and they also have a law under which criminals are incapacitated to propagate the species by operations performed upon them.

Another cause for the prevalence of chronic disease and the consequent deterioration of the race is

The Use of Flesh for Food.

Professor Pawlow, of St. Petersburg, the great authority on the stomach, has discovered many important things. Among other things, he found that meat causes the production of very powerful and very acid gastric juice. Yet, most people in the United States to-day who have sour stomachs are eating beefsteaks to relieve sour stomach, and the doctors are prescribing it to them. Professor Pawlow made these discoveries ten years ago; and six or seven years ago I attended a meeting of the Gastro-enterological Society at Washington, where I was asked to read a paper which was thoroughly discussed, and everybody there was informed of these discoveries. I am certain that every specialist present went away from that meeting determined never to give a patient who had too much acid in his stomach any more beefsteak. It was the meat that made the trouble in the first place. It caused the stomach to become so excited and over-irritated that it formed the habit of making too much gastric juice; so the longer beefsteak is used, the worse off the case becomes. It is true, measurably, that beefsteak neutralizes the acid, but at the same time it stimulates the stomach to make more acid and the condition becomes worse.

This fact is a very good argument that

Human Beings Are Not Intended to Eat Flesh,

for the reason that the human stomach is not adapted to withstand the attacks of such a strong gastric juice. The dog has powerful gastric juice, made to digest and disinfect meat; but the human stomach is not adapted for it. When one uses meat for a long time and his stomach is making such powerful acid, the acid irritates the stomach and it loses its power to resist the attack of the acid, and ulcers are formed. I heard an eminent Chicago physician say at a meeting of the American Medical Association a few years ago, during a discussion of what should be done for ulcer of the stomach: "Gentlemen, I am convinced that none of you know anything about ulcer of the stomach. Ulcer of the stomach is the result of meat eating; it is a meat-eater's disease; and instead of operating upon a patient to cure ulcers, let us withdraw the beefsteak, and the ulcers will get well of themselves." That is not true of every ulcer, but the ordinary ulcer will generally be cured by withdrawing the beefsteak.

The Effect of Meat-Eating Upon the Circulation

demands attention. Meat-eating makes high blood-pressure. The blood is pumped by the

heart into the arteries, and a certain amount of pressure is maintained in the arteries. Conceive of the arteries as a closed tank into which the blood is pumped. Suppose this tank has small openings through which the blood escapes. If the pump works hard enough the tank will be kept full, and little streams will shoot through these openings with a good deal of force. If we make the streams small and close part of the openings, the pressure will be higher, and the liquid will accumulate. That is what we have in the arterial system. The arteries have a capacity of ten or twelve pints. The arteries terminate in very small tubes, and there are muscles in their walls which contract and dilate. When the skin is flushed, it is because these vessels have dilated, and more blood enters; and when the face is pale, it is because the vessels have contracted and less blood comes in, and when the vessels contract, the blood-pressure rises. When these openings enlarge, the blood-pressure falls because the blood flows more readily.

The blood that enters the venous system runs back to the heart without any pressure, as water runs in an irrigating ditch. The pressure is in the arteries. That is the reason why, when you cut an artery, the blood spurts with each beat of the heart; whereas when you cut a vein, the blood simply flows with a steady, feeble flow. The blood that goes into the portal circulation, through vessels of the abdomen, has to go through small tubes and through the liver before it goes into the heart. When we eat meat, portions of it decay in the intestines, and the poisons that are absorbed are all passed through the liver. And when we drink tea and coffee, the poisons of these beverages are conveyed to the liver. A cup of coffee contains more uric acid than the same quantity of kidney secretion contains. There is more poison in a cup of tea than in the same quantity of urine, and twice as much in a cup of coffee.

So Coffee is Not a Good Thing,

especially for those who have a tendency to rheumatism or arteriosclerosis, or old age, and we are all tending that way. Alcohol and tobacco, mustard, pepper, peppercorn, ginger,—all of those things, if one takes them, have to be passed through the liver before they get into the general circulation. And this is a provision of nature to protect us against ourselves, so that when we swallow these poisons they may be filtered out by the liver and we may be saved, temporarily at least, from their bad effects. That is the reason why the gin drinker gets gin liver. All the alcohol he drinks is filtered through his liver, and the liver gets the worst of it. That is the reason a man who eats pepper gets gin liver quicker than the gin drinker does. Pepper has six times the power to make gin liver that gin has. All these conditions produce the same effect, and the reason is that they cause degeneration of the arteries of the liver, cause the liver to become hardened; and what happens to the liver happens in all the rest of the body. Professor Huchard, of Paris, and other investigators, have shown that all the condiments—mustard, pepper, ginger, cinnamon, when freely used, cause hardening of the arteries in the whole body. It is no wonder we find a great many people with liver complaint,

and it is no wonder we have so many kinds of cholagogue pills and liver pills, but all those complaints are caused by the abuse to which the liver is subjected.

The liver is a very important filtering arrangement, and when a man has a lazy or inactive liver, it is simply an overworked, congested liver, and the thing to do is to give it a rest. Change the diet and give the liver a chance.

Now, About the Blood-Pressure.

You can readily see that if the walls of those little arteries which are the only means of escape for the blood from the big arteries, get thickened, hardened, shriveled up, and obliterated, so there are only half as many openings as there ought to be, it will take more pressure to get the blood through. So the heart has to work harder to get the proper quantity of blood through the reduced openings, and that causes the blood-pressure to rise. The blood-pressure itself is not to be blamed. If you have a blood-pressure of 200, you ought to be thankful that you have a heart able to make it, because if that blood-pressure should suddenly drop to 150, death would result.

But it is undesirable to have that kind of blood-pressure continuously, because that poor heart is doing double duty, and that means probably three or four times the work it ought to do; and it will soon get worn out and collapse. When the heart is not strong enough to keep up the necessary pressure, then dropsy ensues, the feet begin to swell, one begins to get giddy, to lose his memory, and wonder why he can not think. He is confused in thought, and loses his appetite; the stomach fails to make gastric juice; the kidneys fail to eliminate poisons; the liver fails to do its work. Every organ in the body fails of its function because the blood supply is insufficient.

High blood-pressure is like a house afire, which is destined to keep on consuming the house until it is destroyed. If you can not put the fire out entirely, keep it as low as possible. That is the best that can be done with these chronic cases of high blood-pressure. There are various measures for reducing and keeping the blood-pressure down. Among them are exercise, which opens up the blood-vessels of the muscles. The blood-vessels of the muscles during exercise contain six times as much blood as under ordinary conditions. Then by massage, warm baths, friction of the skin, and sun baths, the vessels of the skin are dilated and there is more blood circulating in the skin, and so the heart is relieved. The skin is capable of holding two-thirds of all the blood in the body; and if we dilate the vessels of the skin it affords great relief to the heart.

Abdominal massage and deep breathing exercises are especially good, since they move the blood more rapidly through the portal circulation.

But the Most Important Thing of All

is correction of the diet, because mustard, pepper, peppercorn, tea, coffee, beefsteak, beef tea, and all kinds of meats and meat extracts,—these all contract the blood-vessels and raise the blood-pressure. We have a good many people here whose blood-pressure drops down thirty or forty points below what

it was when they came in a short time after they have adopted a fleshless, low-protein diet.

The things I have spoken of are of the utmost importance to our race and to us as individuals. I have but briefly pointed out our greatest dangers, and these dangers are not imaginary. They are real, and our only safety lies in heeding the warning signals as they come to our sight and knowledge.

REYNAUD'S DISEASE

(Continued from page one)

than in the male. According to reports there are about two cases in women to one in men. Nearly all cases have what is usually described as a neuropathic predisposition—that is, these people have a nervous system which is hypersensitive and unstable and to a greater or less degree abnormal, one that is easily excited and disturbed. In a few cases, the disease is directly inherited—that is, it is seen in the children of parents who have the disease. About ten per cent of the

of the hands to cold), injury, fright, worry, anxiety and other mental causes. Infections such as typhoid fever, influenza, erysipelas, malaria, are also held to be exciting causes. Chronic toxemia, or the presence of poisons in the blood, is also regarded by many as an exciting cause.

In many cases there are probably two important causes which are active. These are, first, a nervous system which is hypersensitive and easily disturbed; and, second, the presence of poisons in the blood which act upon a sensitive nervous system, producing the symptoms which are peculiar to this disease.

Symptoms

As above mentioned, the symptoms seem to be due to a disturbance of the vasomotor, trophic, or sensory part of the nervous system. The disease shows itself in the form of attacks which occur at irregular intervals, and are of varying duration. The symptoms are most prominent and distinctive in the extremities, especially in the hands and feet, and they are also seen in the nose, ears,



CLASS IN "BREATHING EXERCISE" ON THE NORTHEAST LAWN

cases reported belong to this class. It is also often associated with other nervous disorders, illustrating in another way the close association of a weak nervous system with this particular disorder. The nervous diseases with which it is seen are locomotor ataxia, epilepsy, hysteria, neurasthenia, chorea, sick headache, and sometimes in certain forms of insanity, particularly mania. It is also associated with a peculiar disease known as scleroderma, or a thickening of the skin, and sometimes with constitutional diseases such as tuberculosis, diabetes, etc.

The above described conditions may be regarded as predisposing causes, while

The Exciting Causes

are exposure to cold (and for this reason the disease is more prevalent in the winter, or with people who are engaged in some occupation that requires the exposure of the hands or other parts of the body to cold and moisture, and is often seen for this reason among washerwomen, brick layers and others whose occupation necessitates the exposure

tongue, lips, and sometimes in other parts of the body.

The symptoms may be described under three classes or headings:

- (1) Local syncope.
- (2) Local asphyxia.
- (3) Local dry gangrene.

Under local syncope we have the fingers or toes or lips, or the part that may be affected, becoming very pale and icy cold. During this period there is also a partial or complete loss of sensation to touch and pain. A pin may sometimes be thrust into the finger without the patient's feeling it during this period of the attack. There is also associated with this, however, quite often at least, very severe pain. When the finger is pricked, no blood exudes. The fingers or toes or parts affected remain in this condition for several minutes or a few hours, when this stage disappears, to be followed in some cases by the second stage, or the period of local asphyxia. In some cases, or at least during some attacks, the disease does not progress beyond

(Continued on page four)

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VOL. III SEPTEMBER 30, 1910 No. 43

"THE NEW HYGIENE"

THIS term is used in distinction from the "old hygiene" to indicate the measures that must now be taken to guard the civilized world from dangers that threaten the race with absolute extinction, dangers that were not recognized in the hygienic and sanitary measures that have been in vogue for a few years in the past.

Up to within two or three decades the knowledge of hygienic and sanitary principles had been very limited, and the little that existed was relegated to the garret of no-usability. There, since the days of Moses, it has been allowed to rest. The consequence has been an awful harvest of death all through the ages as one epidemic after another has swept over the land like a hurricane of destruction. Smallpox, the plague, typhoid, yellow fever, and a multitude of maladies, all of them the fruits of ignorance and neglect, held undisputed right of way through any community which they might chance to visit. They were frequently regarded as visitations of a malign spirit, or an offended deity, a punishment for moral obliquity, or at best a providential calamity.

But within the past generation people have begun to waken to the fact that they were the conservators of the health of their own communities, upon them rested the responsibility for the visitations of these awful scourges, and as they have done so, steps have been taken to erect barriers against these unwelcome and ghastly visitants. Quarantine has been instituted, vaccination has been enforced, the causes of malaria have been ascertained, yellow fever was hunted to its source and its source banished; typhoid bacilli were identified and tabooed; and the race has been measurably ransomed from the reign of death due to these preventable diseases. The system of sanitation under which this great work has been accomplished is styled "the old hygiene," not as an epithet, not to cast any aspersion upon it, or in any way to detract from its vital importance and the great things that have been achieved through it.

The measures which Doctor Kellogg, in the articles that have been published in this paper for three weeks, names "The New Hygiene," are those demanded by the still more dreadful inroads upon humanity that are being made by the chronic diseases. As pointed out by Doctor Kellogg, "the old hygiene" was directed at acute diseases only. And acute diseases come to their victims from extraneous sources. They are bred and born in our surroundings, and attack us suddenly and violently from without. But chronic disease is raised at home, in our own systems.

The seeds of chronic troubles are sown in our bodies by our own hands, so to speak, and we bear the responsibility of their appearance. They do not come to us through contamination or contact with some other person having the same complaint. If a man finds that he has tuberculosis he attributes that to some source outside of himself. If he develops pneumonia, he reckons that he acquired the germs of that disease from some source outside of himself at a time when he was too much exhausted to resist them. But when rheumatism or dyspepsia, or arteriosclerosis, or autointoxication in any of its manifestations appears, we reckon with ourselves, and say, if we know enough to say anything about it intelligently, that we have been transgressing the laws of our own being. And the "new hygiene" aims at the education of the people who are very largely ignorant of the nature of the offenses against natural law that cause these diseases. It also carefully instructs the individual how to avoid those offenses, and how best to promote his own personal health. Public measures for protecting the community from the inroads of epidemics are commendable and necessary, but the checking of the still more terrible oncoming of the destructive personal ailments brought on by careless personal living is an individual matter, and must be brought home to an awakened conscience and an enlightened understanding of the individual.

The "old hygiene" is amply fortified in civil law by which reasonable sanitary precautions for the community may be enforced. Not so with the matter of erecting barriers against rheumatism, apoplexy, heart disease, dyspepsia, insanity, etc. But while the acute diseases have slain their thousands, those of the personal and chronic character have slain their tens of thousands. And, while civilized countries are being in a measure delivered from the former, the latter are preying upon the people with ever-increasing virulence and rapacity. This is a matter demanding from every individual the heartiest interest, not only for himself, but in behalf of the multitudes who are going down to

death around us. It is to help to stem this tide that the proposed Health Department is asked for in our general government. The object of this movement is to provide for the most thorough investigation of the causes of these diseases and the most diligent search for their origins.

REYNAUD'S DISEASE

(Continued from page three)

the first stage, or that of local syncope.

The second stage, or local asphyxia, may occur independently of the first, or following the first stage. In this the fingers become purplish blue and even black. At this time there may be also pain. This stage lasts usually but a few hours, then disappears, and may be followed by the third stage, or that of dry gangrene. In this second stage sometimes bloody blisters form on the tips of the fingers. These dry up and leave a dry scab which may continue for some time. This forms the third stage, or the period of dry gangrene. Usually this last period does not appear until the patient has had several attacks of the first stage, or the first and second stages of the disease.

These symptoms usually appear in the form of attacks, and any single attack may consist of the first, the first and second, or the first, second, and third stages of the attack. The attacks are usually excited by exposure to cold and wet or by fright or injury or physical fatigue or indigestion. As the disease progresses, the attacks usually become more frequent and more severe. The last stage of the attack does not usually occur until the disease has become somewhat chronic and the patient has had several attacks of the first and second stages of the disease.

As the result of these changes in the vascular supply of the parts the fingers become smaller, there is an atrophy of the soft tissues, sometimes even a wasting of the bones. The joints of the hands and other joints of the affected parts are often enlarged and deformed. The joints become somewhat stiffened and the motility is diminished.

The Disease Not Local

While these symptoms show themselves especially locally—in the hands and feet or other parts of the body—one should not get the idea that the disease is a local one. Since there has been an opportunity to study it, the fact has developed that it is a general disease, affecting the whole body to a greater or less extent, but showing itself especially in a local manner in the hands and feet, though the whole body, or at least other parts of the body, are affected to a greater or less extent. In addition to the local symptoms as above described, other symptoms are often present, such as disturbance of digestion, colicky pains in the bowels, watery diarrhea or constipation; in some cases there are attacks of temporary blindness which is thought to be due to a spasm of the blood-vessels in the fundus of the eye.

The amount of urine passed is usually diminished and the amount of urea excreted by the kidneys is also sometimes diminished, especially during an attack. There may be

blood in the urine—so-called hematuria or hemaglobulinuria. These patients are also thin in flesh and the nutrition is disturbed to a greater or less degree. The skin is usually inactive and dry. These people are usually quite nervous, sometimes do not sleep well, occasionally are depressed, and frequently entertain morbid fears, such as fear of being alone or going to certain places. There is sometimes more or less mental depression, and in a few cases that have been reported there has been mental excitement or even mania.

Pathology

By the pathology of a disease we mean the changes which occur in the tissues of an organ as the result of the disease. In this disease the pathology is not very well understood. It is usually regarded as a functional disorder primarily of the nervous system. Probably in many cases the cause of the disease, as indicated above, is an abnormal and hypersensitive condition of the nervous system, with the presence of poisons in the blood acting upon a nervous system of this kind and bringing out the symptoms. There is a disturbance of that part of the nervous system which has control of the blood-vessels or nutrition of the parts and the sensory nerves. The paleness in the parts and the lack of circulation is undoubtedly due to a spasm of the small arteries in the parts affected, while the cynosis and dark discoloration come from the dilatation of the small veins and perhaps also the arteries in the same parts. In cases that have run a chronic course and where post-mortem examinations have been made, certain observers have found an arteriosclerosis or a hardening of the small arteries in the parts affected, or what is sometimes described as an end arteritis, which means a partial or complete plugging up of the small blood-vessels in the parts so that the blood can not circulate. This condition, however, has not been found except in a few cases in which the disease is well advanced. Also in some cases there has been found a neuritis in the nerves of the affected part.

Diagnosis

The diagnosis of this disease is made by the presence of the symptoms above described, and in a well developed case there can be little difficulty in making a correct diagnosis. It should be distinguished clearly from gangrene due to destructive changes which occur in the arteries of old people which produce destruction of tissue in the part. Ergot poisoning also sometimes causes symptoms similar to those found in this disease; and chilblains produce similar symptoms.

Prognosis

Most of these cases if seen and treated early in the disease are curable. It is important that the case be received early and treatment instituted, so as to prevent the disease from developing into a chronic stage.

Treatment

The treatment should be general and local. The general treatment should look after the general improvement of the patient's nerve tone and nutrition, and the elimination of poisons from the body. The stomach and bowels should have careful attention. The patient should have a careful dietary consist-

ing of wholesome foods and foods that are easily digestible. Constipation, if present, should be carefully relieved. The patient should live an outdoor life, should sleep out of doors if possible, and take moderate exercise. Exposure to cold should be avoided. The attacks of this disease are more frequent in the winter; for this reason it is sometimes best, if the patient lives in a cold climate, to move to a mild, warm and equable climate. Mental worry, overwork and all debilitating causes should be relieved. The patient should cultivate the habit of sleeping regularly, and should have at least eight hours' sleep out of the twenty-four. General tonic treatment,

such as tonic hydrotherapy, massage, electricity, can be used to good advantage.

For the local treatment the hands and feet should be immersed in warm baths for ten or fifteen minutes twice a day, and the photophore or radiant heat can also be used to good advantage in these cases. Galvanism applied to the affected parts is also very valuable. It is usually best applied by putting the negative electrode in a pail of water to which a little salt is added, and the hands and feet should be immersed in this while the other pole of the battery is applied over the stomach or some other part of the body. By applying electricity in this way through a



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L. J. BUSH, Passr. Agt.

water bath the current comes in contact with all of the parts, and results are usually very satisfactory. Massage of the parts should also be given daily. These cases are usually chronic and can be best treated in a well regulated sanitarium where all of these different methods above mentioned can be used in an intelligent and skillful manner. It is also important that the treatment be followed up for a period of weeks or even months in order to get the best results.

The writer has seen many cases that had reached the chronic stage very greatly benefited by the intelligent use of these remedies, and milder cases are quite universally cured of the trouble.

SUNDRY QUESTIONS

(Continued from page one)

will purify itself. Do not smoke, drink whiskey or beer; abstain from tea and coffee, which are almost as bad. Prevent putrefactive poisons from getting into the blood by abstaining from articles of food which will undergo putrefaction in the intestine. Keep the bowels active, drink a great deal of water, take plenty of outdoor exercise, living in the light and fresh air, and you can not help having pure blood; the blood will purify itself in a short time.

Q. Is biting the finger-nails a nervous disease?

A. No, but a person who is nervous sometimes does this, just as he does many other things; he is uneasy; has to be doing something all the time; he hitches, wriggles about, bites his finger-nails, pulls at his hair, and does various other things.

Q. What diet is best for a growing child from six to ten?

A. An ordinary, wholesome, non-flesh dietary, with a moderate allowance of milk or cream and a reasonable amount of butter, fats enough to give satisfaction, enough to produce a proper sense of satiety in eating, but prevent overeating. This is important, because if there is not enough fat in the food, the effect will be to lead to overeating.

Q. How can one keep the hair from falling out?

A. Rubbing the scalp with cold water is a good measure. Exposing the hair to the air is good.

Q. What causes hay fever?

A. Pollen in the air from various plants. There are thirty or forty plants which produce pollen which may irritate the nose and cause hay fever.

Q. Describe the route of travel of the food after it leaves the mouth.

A. It takes the food seven hours to pass from the stomach to the cecum. It remains fourteen hours in the cecum and ascending colon. That makes twenty-one hours. Three hours more are occupied in the rest of the alimentary canal.

ARRIVALS

The following names appear on the Sanitarium register for the week ending September 25: Edmond Ryan, Detroit; Geo. W. Burnap, Mich.; Stanley De Lissier, Jamaica; W. D. Waldorf, Toledo; Rev. A. L. Gherke, Detroit; M. S. Mitchell and G. Van Buren, Ohio; Miss S. F. Cessna, Ill.; John M. Allen, Miss.; J. Brooks Allen, Ark.; John Meister, Ill.; E. J. Phelps, Minneapolis; Miss Cora M. St. Clair, San Francisco; D. C. Rood and S. Mitchell, Duluth; Bertha S. Woodard, Mich.; H. Wood, Tex.; Chas. C. Walker, M. D., Siam; Lucy J. Schrachman, Neb.; Mrs. H. Slack and Mrs. R. W. Jones and child, Miss.; W. J. Cooney, Ohio; Mr. and Mrs. E. W. Hudenith, Detroit; E. D. Mitchell, Okla.; N. E. Whithers, O.; H. H. Marks, Miss.; Louise Biscell, Ala.; J. E. May, Ky.; C. H. Ferguson, Mich.; Dr. J. W. Torbett, Tex.; E. S. Oberly, Pa.; A. S. Toms, Los Angeles; Louis Simon, Ind.; Miss J. Winifred Wilcox, Tex.; C. E. Embsun, S. Dak.; H. E. Carpenter, Jr., Mich.; Mrs. D. L. Naylor, Tex.; Dr. A. E. Johnson, Minn.; Chas. Moyer, Indianapolis; Mrs. F. J. Wissell and Marcellus Wissell, Mich.; Geo. L. Songer, Tex.; W. L. Slafer, Conn.; J. B. Farthing, Mrs. D. E. Garrett and Carrie J. and Jeannette Farrette, Texas; Mrs. W. H. Hodge, O.; Frank Thompson, Detroit; H. C. Halberth and son, N. Y.; Mr. and Mrs. C. M. Roser, O.; Edw. P. Allen, Jr., Milwaukee; F. W. Cuebber, Toronto; Y. Allen Holman, Ala.; Mae Jones, S. Dak.; Miss Lida Cherington, O.; S. T. Jackson, Ia.; L. J. Edwards, Okla.; Mr. and Mrs. B. F. Troxell, Ill.; Mrs. B. A. Tolman and Mrs. H. A. Walker, Chicago; Mrs. J. McCalmont, Des Moines; Mrs. Dorothy E. Kellam and maid, Mo.; Grace Green, Ky.; Harry Misser, Ill.; Harry L. Stevens, Okla.; Harold A. Bishop,

Toledo; F. C. Reeve and Mrs. F. C. Reeve, Ia.; Lydia A. P. Whitecomb, Indianapolis; H. A. Oat and wife, Conn.; Mrs. L. O. Miller, Mich.; Chas. B. Harrah, Pa.; E. M. Bryant and T. A. Sebring, Ohio; Miss S. M. Sheidlay and Mrs. J. D. Leitz, Mo.; J. E. Sheidler, Chicago; A. W. Hunter, Ky.; Ida E. and Mrs. Mary Bartel, Ind.; B. Amundsen, Ia.; M. H. Mortensen, Wyo.; Mr. and Mrs. H. C. Ninell, N. J.; Mrs. E. E. Flickinger, Indianapolis; S. M. Simmons and Miss Lizzie Bohannon, Ky.; Mrs. R. J. Fuller, Ind.; Herman Langhorst, Chicago; Wm. T. Norwald, Cincinnati; J. R. Westhafer, Ind.; F. W. Williams and wife, Miss.; Alvin A. Coher, Porto Rico; Miss Martha Irwin, O.; Chas. L. Sibern, Cleveland; Bessie L. Smith, Mich.; B. S. Fletcher, Buffalo; P. F. Ostema, Mich.; Mrs. N. A. Little, Ind.; Mrs. Etta Scott, Kans.; Mrs. W. A. Phillips, Ill.; Ida Waggeles, Ind.; John P. Scholk, Ohio; W. A. Field and Henry Furst, Jr., and family, Chicago; Mrs. Martin Hose, Minn.; Edmund C. Felix, Mich.; W. H. Hines, Chicago; C. W. Sharpe, Mich.; Miss Helen Pease, Detroit; Oliver Moore and Mrs. Moore, Mich.; J. M. Ainsworth, O.; E. E. Stacey, Indianapolis; H. W. Gnom, Chicago; C. H. Farnham, N. J.; E. J. Dunn, Ill.; Bart Thoman and Mrs. J. P. Thoman, Mich.; Mrs. W. H. Roberts, N. Y.; Henry S. Clubb, Philadelphia; Miriam Nichols and W. W. Nichols, New York City; Jos. F. Ratke, Detroit; Geo. H. Royce, Chicago; Mrs. H. L. Johnson, City; Mrs. Blanche Wreston, Miss.

News and Personals

Mrs. W. H. Roberts, of Burma, missionary under the Baptist Board, is taking treatment at the Sanitarium preparatory to returning to her field of labor.

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The Medical Missionary (Monthly)	.50 " "

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Good Health and Medical Missionary	1.35 " "
All three journals one year	2.10 " "

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Address either of these Journals,

Battle Creek, Michigan

Doctor Kellogg will visit Austin, Texas, October 13th, to give an address before the Texas Congress of Mothers. While in the city he will also address the students of the University of Texas.

We learn with regret that the American minister to Siam is seriously ill in Baltimore. His visit to the Sanitarium some months ago is remembered by many with very great pleasure.

Rev. Alexander H. Leo, of Ponce, Porto Rico, is spending a few days at the Sanitarium as the invited guest of Doctor Kellogg, whom he met in Porto Rico during his visit last winter.

Rev. H. P. Steigerwald and wife, of Bulawayo, missionaries in South Africa, are at the Sanitarium receiving treatment to fit them for further labors. These people are friends of Dr. Geo. Thomason, superintendent of the Sanitarium near Cape Town, and are visiting us upon his recommendation.

Mr. E. E. Stacey, of Indianapolis, State Secretary of the Y. M. C. A. for Indiana, is an old friend of the institution and calls frequently for friendship's sake and a little treatment. He was with us this week for three days, taking some treatment from Doctor Byington, the celebrated specialist for eye, ear, nose and throat diseases.

Miss Eva Hardie, a missionary from India, under the Methodist Board, came to the Sanitarium seven months ago very much reduced in health and strength. She leaves us this

week, having been greatly restored and placed on the road to complete recovery. She is very grateful for the help that she has received, and in a few months expects to be back in her field of labor.

The Sanitarium School of Health and Home Economics opened this year with a fine large class of earnest women who are interested in the promotion of health through the improvement of the home. The class includes a number of ladies prominent in social and educational circles, among others, Mrs. Charles Lewis, wife of Judge Lewis, member of the Supreme Court of Minnesota.

Mrs. Lewis has closed her house for the season and is spending several months at the Sanitarium for the sole purpose of becoming acquainted with the Battle Creek Sanitarium principles as inculcated in the School of Health and Home Economics. If all the mothers of the land could be trained in this school, the result would be the elimination of an enormous amount of sickness and the saving of hundreds of thousands of lives annually in the United States alone.

Mr. and Mrs. R. C. Ricker, of China, have been for some time patients at the Sanitarium. Mr. Ricker has been engaged in edu-

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educational and evangelistic work in China. He has now gone to Drew Theological Seminary in New Jersey, where he will study for the winter, and hopes to return with his wife to China in the early spring.

We were pleasantly surprised to receive a brief visit this week from Rev. Henry S. Clubb, of Philadelphia, who organized the first vegetarian society in the United States and was a charter member of the original organization in England. Mr. Clubb has now reached an advanced age of over ninety years, but is still active in body and mind and doing all he can to promote the knowledge and practice of the right methods of living.

On next Friday evening the Christian Endeavor Society will hold its meeting in the Sanitarium chapel. The meeting will be led by Mr. Barr, the topic being, "Christ or Self." The meeting last Friday evening was held in the parlor and was very largely attended, the principal address being given by Mrs. Bishop Bashford, who spoke of the Christian Endeavor work in China. The meeting was led by Mr. C. C. Wencke, who sang a solo.

We learn with extreme regret of the death of Mr. H. G. Hoyt, business manager of the Hinsdale Sanitarium. We have no particulars. Mr. Hoyt was an estimable gentleman, capable and genial, and was highly respected. He will be sadly missed by the institution of which he has had the business management from the start. Our deepest sympathies go out to his family and to the larger family of the institution of whom he was an honored and loved member.

We have with us at present Mrs. J. W. Bashford, wife of Bishop Bashford, of China. Mrs. Bashford is accompanied by her sister, Mrs. W. E. Frank. The Bishop and his wife were representatives of their mission, which is under the Methodist Episcopal Board, at the recent Edinburgh Conference. Mrs. Bashford addressed the Christian Endeavor meeting on last Friday evening, giving a most lucid and interesting statement of the progress that is being made in China.

For three weeks the painters and decorators have held possession of the Sanitarium chapel and are now about ready to release it. During this time they have thoroughly renewed the spacious room, and leave it in a most beautiful condition. The decorations were designed by Mr. Parrott, who is in charge of the decorating work of the institution, and reflect great credit upon that gentleman's skill and taste. Next Sabbath at eleven o'clock the reopening services will be held. It is hoped that Doctor Kellogg will be able to give the address, and there will be special music.

On the evening of the 22d instant the students of the American Medical Missionary College, who are to pursue their studies in the College of Physicians and Surgeons in Chicago, were given a farewell reception at the Sanitarium villa at Gognac Lake. The meeting was called early in the evening and opened with a repast provided by the insti-

tution, in which roasted corn and cantaloupes acted an important part. The after part of the evening was spent in a social manner and included a brief but appropriate address by Dr. J. H. Kellogg. Altogether the evening was delightfully spent.

Among the patients at the Sanitarium are Mr. and Mrs. M. C. Treat, of Washington, Pa. Mr. Treat is well known for his many benefactions to the missionary cause, one of the most recent being the gift of a fine dormitory building to Union College, Hankow, China. This building is named for Dr. Joseph S. Adams, who has done noble work in China for the past thirty years, and whose son is here to enter the freshman class of the American Medical Missionary College. In the recent visit of Mr. and Mrs. Treat to China, India and other Oriental countries, they found much to stimulate their interest in the splendid work being done at the various mission stations.

Dr. C. H. Farnham, of Newburg, N. Y., who was a patient at the Sanitarium last winter and received much help from his treatment, is again here to receive the benefits of the institution, though he is still in comparatively comfortable health. Doctor Farnham is interested in the establishment of a university for the fine arts. He has in mind a great school in which the fine arts shall be assembled as the various sciences are now assembled in the great literary universities. This school is designed to develop the ethical as well as the esthetic qualities of the arts. He is the author of several works and is now engaged upon a book which is intended to set forth the merits of the plan upon which he is laboring and which upon the face of it commends itself as worthy of earnest consideration.

The publishers, Doubleday, Page & Co., New York, have kindly sent to our office a

copy of "Making Life Worth Living," a volume of about 300 pages written by Herbert W. Fisher. The writer is not a professional teacher or practitioner of medicine, but a layman who has his eyes wide open, and holds in his hand a very ready pen. He sees things and tells about them in plain, untechnical terms in a way that is readable, attractive, interesting, and intensely practical. He acknowledges his obligation to several specialists in scientific good living, among them Professors Chittenden, Fisher, and others, but he addresses the great mass of men and women, who will find pleasure and great profit in the reading of the book, which is nicely printed in large type. The price is \$1.20 net and 12 cents for postage. Order of the publishers.

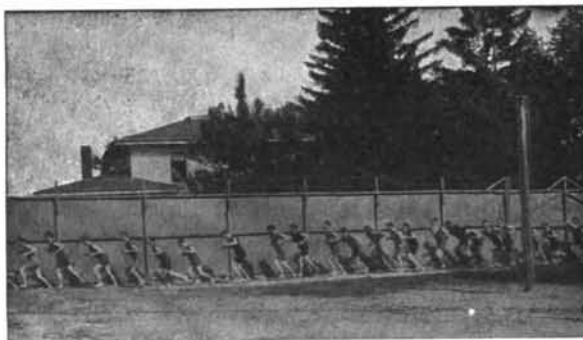
Quite a large number of missionaries are now at the Sanitarium. Among these we mention Rev. Wm. Ashmore, of Swatow, son of the celebrated doctor who in the past has done so much for the establishment of Christianity in the Chinese empire. Mr. Ashmore represents the Baptist Missionary Society and expects in a few weeks to return to Swatow, in Southern China. The name of another celebrated missionary appearing upon the Sanitarium register is that of Rev. Chas. H. Hurlburt, director of the African Inland Mission, with headquarters on the East coast of Africa. Ex-President Roosevelt's headquarters in Eastern Africa were adjacent to the station occupied by Doctor Hurlburt. The two men were thus brought together, and through the influence of Mr. Roosevelt the opportunities of the mission were greatly increased. A large new territory one thousand miles inland, inhabited by a cannibal tribe, was placed before the mission. Doctor Hurlburt is accompanied on his visit to the Sanitarium by Rev. W. A. Haas, of Columbus, Ohio, who expects to leave this country soon to open up this new field.

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For full particulars address:

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THE BATTLE CREEK IDEA

Vol. III No. 44

BATTLE CREEK, MICH., OCTOBER 7, 1910

Price 2 Cents

Conservation of Children

Proper Digestion and Nutrition the Basis
of All Reforms — A Lecture by
Mr. Horace Fletcher

CONSERVATION is a word we hear so frequently that it is very difficult to escape it. And it is one of the most important words at the present time in connection with our

THE SANITARIUM AND THE SEASONS

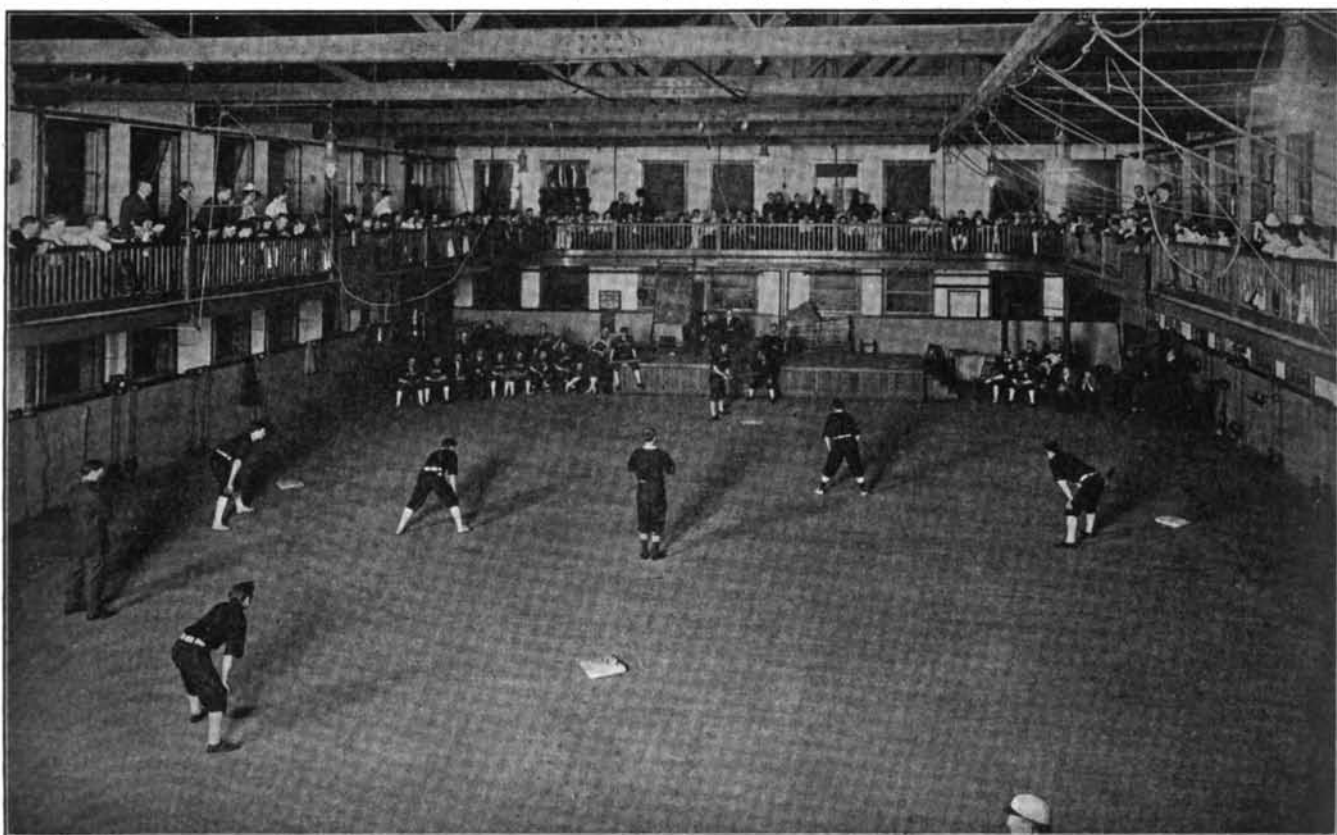
What is the Best Time in the Year to Come
to the Sanitarium? — At what Time
Can One Get the Best Results?

THE very best time to give attention to sickness is before it comes on. Avoid the causes, steer clear of all physical ailments as far as possible by shunning those things

The Truth About Disease

Autointoxication the Nemesis of Physical
Transgression — Relations Between
Rheumatism and Fruit Acids
Not Unkind to the Patient

IN response to the question, "Are lemons a good remedy for rheumatism?" at a recent question-box lecture, Dr. J. H. Kellogg said: It is a popular idea that acids of all sorts



INDOOR BASEBALL IN THE GYMNASIUM

national and individual interests. We are in the midst of a tidal wave of reform, the strength of which is scarcely realized by us, it is coming so strongly, so subtly, and in so many different directions that it scarcely at-

(Continued on page two)

which breed sickness. But having let the bars down, inadvertently or even otherwise, the next best time to attend to the matter is in its incipency. The premonitory symptoms should be heeded, and if they are, in most

(Continued on page five)

are bad for rheumatism, but it is one of the greatest errors I know of in dietetics. There is nothing more healthful in rheumatism and all troubles of that kind than fruit acids. The old idea was that rheumatism being due to uric acid, it must be that acids would be

Original from

UNIVERSITY OF MICHIGAN

harmful in those cases because they would increase the acidity. There are two errors in that old theory. The first is that rheumatism is due to uric acid, and the second that fruit acids increase the acidity of the blood. Both of those suppositions are wrong. How did we get the idea that rheumatism is due to uric acid? Because persons suffering from rheumatism very often showed evidences of the accumulation of uric acid in the body, and because it was found that foods which contained uric acid increased rheumatism. Hence it seemed a very reasonable conclusion, but a careful study of the subject has shown that there is really no definite relation between uric acid and rheumatism. It was an error that was hard to get over, but by repeated experiments it was found impossible to produce rheumatism by feeding animals uric acid.

Now, my belief in reference to rheumatism—and I think it is a growing belief among the members of the profession—is that rheumatism is due to poisonous substances that are generated by the decomposition of proteins, not necessarily meat, but proteins, in the intestine. In other words, rheumatism is one of the consequences of autointoxication. This theory of autointoxication is a new doctrine, so that many people, whenever it is mentioned, say, "That doctor has a fad; he is—preaching autointoxication; that is a hobby he is riding."

Doctor Meyer says that "all diseases are due to autointoxication,—to two poisons, one produced by germs, and the other produced in the intestine." And that means the same thing, for the germs produce the poison in the intestine." Now, of course, Doctor Meyer did not expect to be taken literally, because there are some diseases which are not produced by autointoxication, but the progressive members of the medical profession, those who are studying and observing the results of laboratory research, are coming to see very clearly that nearly all chronic diseases are due to poisons absorbed from the intestines, which pervert the functions of the body.

This is a matter of very great consequence to the medical profession, because it relieves them of an enormous burden of worry and annoyance to which they were formerly subjected. For instance, in the old days when the patient asked the doctor, "What makes me bilious?" the doctor could not answer satisfactorily to himself or to the patient. He would say, "Well, your liver gets torpid," but he could not answer the query, "What makes my liver torpid?" I think people had the idea that the liver went on a strike, or got perverse and sulky, and would not work. And I have met people who were fairly furious about their bad livers. One lady said, "O Doctor, if you would just take this old liver out, I would be all right." She fairly hated her liver; she wanted to have it taken right out. Such a state of mind is most unhappy.

The old doctors used to talk a good deal about melancholia. Do you know what melancholia and hypochondria mean? Hypochondria means that there is something the matter down around your liver under your ribs. We say, "down in the mouth," but the old Greeks used to say, "down under the ribs." Now we know that when a person is

bilious, it is not because there is anything the matter with his liver. The trouble is that his body is full of poisons; he is absolutely intoxicated. A bilious lady came into my office recently, and after I had examined her case I told her that I thought she was suffering from autointoxication. "You are entirely mistaken, sir; you are entirely mistaken; I have not had a drop since night before last. I admit I do take a cocktail just before I go to bed, but I didn't have any last night." But there is an intoxication that is worse than the one she had in mind. A person can get drunk on whiskey and get over it in a few hours, but when he is drunk on poisons that are being distilled in his own body, when he has a brewery and a distillery in his colon, and is generating poisons that are ten times as deadly as alcohol, and pouring them into his blood continually, is it any wonder that the brain is muddled, and he can not think clearly, and that he looks and feels stupid and morose sometimes?

I asked a gentleman the other day how he was feeling, and he said, "I feel as though I wanted to bite somebody's head off." He had been accustomed to taking a cigar to control these feelings, but he had not had one that morning, and he had beefsteak rotting in his colon, filling his body with poisons, setting his nerves all on edge, so that he was all unstrung, and he wanted a cigar to antidote that irritability. Nicotin is a narcotic, and the cigar would hide those symptoms; then he could go on and eat more beefsteak, and smoke more cigars, and by and by he got to where he had to smoke twenty-five or thirty cigars a day in order to keep those feelings in subjection. With some people cigars do not answer. Then it must be opium. With ladies it is commonly tea and coffee, and sometimes cocaine. But the ladies are going a little farther now, as tea and coffee do not do the work any more—they are coming to cigarettes. I met a lady in the lobby here not so very long ago, and she said to me, "Doctor, I am thoroughly converted to your principles; I am going to be a great missionary for this institution." I had caught the odor of the cigarette, and noticed a little brown stain on her fingers. I said, "You will have to change your perfumery if you do." She seemed very much shocked for a moment, but she understood. I am amazed at the number of women who are smoking cigarettes. It is because they feel the need of something to quiet the nerves—to soothe this terrible clamor.

But the trouble is not with the nerves; it is something back of them. When in the past you have gone to the doctor and said, "Doctor, what is the cause of nervousness? What makes me nervous?" did he tell you what made you nervous? He did not know what made you nervous until this great truth about the manufacture of different kinds of poisons in the intestines that are thrown into the body and produce such a great variety of symptoms was discovered. Perhaps you also asked the doctor, "Am I going to have apoplexy?" "Well," the doctor said, "what did your father die of?" "He died of old age when he was ninety." "What did your mother die of?" "Well, she is not dead yet, and she is eighty years old." "Well, I don't know. What makes you think you are going to die of apoplexy?" "O, I am a little

stout, and don't you think I look as though I was rather apoplectic?" "Well, now, I don't know but you do." "What causes apoplexy, Doctor?" "I don't know." That was correct; he did not know. He only knew that its direct source was the bursting of a blood-vessel.

Perhaps you went to the doctor and said, "I have an awful neuralgia. Doctor, what causes neuralgia?" Again he did not know. The only answer I could give to that for twenty years was that made by Doctor Chapman, of London, years ago, "Neuralgia is the cry of a hungry nerve for better blood." That is as far as anybody could get. The professor of practice in a medical college which I attended when a young man gave the following as a definition of neuralgia: "When your patient has a pain, and it is due to a tumor, or the paralysis of a nerve, you know what causes that pain. When he has a pain due to inflammation, you say he has a neuritis. When we find pain caused by an abscess, that is another form of pain caused by pressure; but when you find a pain and you do not know where the source, or what the cause, that is neuralgia."

Neuralgia was a sort of limbo into which the doctors threw all the pains they did not understand, and could not account for in any other way. One by one the pains that were in this limbo have been withdrawn and assigned to their respective causes, until at the present time there is not a pain left in limbo. There is not a single pain that can not be accounted for in some other way than by calling it neuralgia because we do not know its origin. We do not hear as much about neuralgia as formerly. It has come to be a very uncommon word in our records of the pains from which people suffer. We now know that a pain is due to a condition of the nerves that comes as the result of certain poisons generated in the intestines and absorbed into the system. Neurasthenia is now known to be a symptom of which we know the source, and we do not any longer regard it as a disease. The real thing back of it is the reservoir of poisons that is pouring its contents into the blood, and manifesting its true character in many ways.

CONSERVATION OF CHILDREN

(Continued from page one)

tracts notice. And we are particularly interested in it at the present time because we have with us in the Sanitarium community Senator Robert L. Owen, one of the prime movers of this great reform for economics, or reform for appreciation of our national resources and the husbanding of them. We have heard much about the conservation of the public lands, of the mineral resources, of the water rights, and we have also heard somewhat through the efforts of Senator Owen, particularly, of the conservation of the national health.

But there is one subject in which I am particularly interested, and that is

The Conservation of the Child,

the infant of to-day, the citizen of to-morrow. You have associated my name, within the past eight or ten years, with a reform movement in dietetics. I have been

dubbed "the chew-chew man" because of the interest I have taken in the fundamental economics in nutrition; but I want to tell you that the impelling and compelling cause of all of my activities for the past fifteen years has been the conservation of the child. The attention given to the subject of nutrition has been one of the details necessary to be threshed out before we could properly conserve the child.

It has been my good fortune to fly about over the earth for the past forty-six years, stopping here and there, noticing conditions, becoming acquainted with people in all parts of the world; and I have been able to note contrasts, to note that in one part of the world people did things easily and well which were considered to be impossibilities in another part of the world; to find that where there was great ignorance on certain subjects in one part of the world, in another part of the world the same thing was so commonplace as not to be considered even an item of education.

Japan Fifty Years Ago

It was my good fortune, some forty-seven years ago, to go to Japan in feudal times and it was a country so peaceful, so civilized, so law-abiding, so altogether secure that a lady or a child could go from one end of the empire to the other without fear of molestation, either from wild animals or wild men. There was not a city slum which could not be traversed by the veriest weakling; and among a population which numbered at that time about thirty-five millions, there were only 800 persons under restraint for any cause whatever, and those were minor offenses. And as I moved about the world, coming back to America and Europe, circling the world five or six times, it was always a wonder to me that the secret of the Japanese civilization had not penetrated to the uttermost corners of the earth, and had not become the property of all the people of the earth.

Being Interested in Sociology,

and fortune taking me to the beautiful city of New Orleans, I was led to pay particular attention to quarantine. New Orleans and the South have been at different times subject to epidemics of yellow fever, and such was the menace there that the most vigorous quarantine was in operation. Pondering upon quarantine and the need of having it perfect in order to make it in any way efficacious, it occurred to me that it would be possible to establish a quarantine against ignorance.

At the same time I was suffering from

The American Disease—

the neglect of the individual health. I was put upon the scrap-heap; but, retiring from business with all these ideas forming in my mind, it occurred to me that if I were to preach the idea of quarantine, I would better begin in quarantining myself against those microbes which had caused my disabilities. Then began the study of the subject of nutrition, for it was evident to me that my own disabilities were the result of malnutrition. I had that faith in Mother Nature to believe that whatever disabilities I suffered were my own fault and not the intent of beneficent

nature; and consequently I began in my search for a quarantine against my own disabilities, to hunt up the causes of these disabilities.

I happened to be in Europe in the winter and spring of 1898 at the time of the Spanish-American war. There was the greatest excitement over the war. There were crowds in the streets; and landing there from the quiet shades of Oxford, coming immediately into the glare of all that excitement, I was more or less affected by the change. I roamed about in the streets that first night noting the excitement with a friend of mine.

We Saw an Enormous Policeman

disciplining a little mite of a boy; and as we approached we heard what the policeman was saying to the boy, and we heard something of what the little boy was replying to the policeman. He was disclaiming against the accusations of the policeman.

The policeman was calling him all kinds

of them and lecture them, and let them go; that is all we can do with them." And I noticed that across the street were the older boys calling out derisively to the policeman and putting their fingers to their noses.

And it occurred to me as the policeman told me the story that here was a little boy, born into the field of our responsibility;

He Was Made Criminal—

became criminal before he ever knew there was anything good in the world. He was branded as a criminal before he even knew that good existed. And it seemed to me as if it were a reproach upon our civilization that such conditions could exist where a child should come into the country and never be permitted to be good and respectable. I was seized with a reproach of conscience that I had not caught that little fellow, followed him home, and found out the conditions in which he lived, and at least made an attempt to give him a chance to know the difference



CONSERVING THE CHILDREN

of little rascal, and he was denying it. We heard the policeman say, as he pushed the little fellow out into the street, "Now, get, you little bastard, and to — with you." I was strongly impressed, because there was the law talking in those terms to innocence. I stopped and made inquiries of the policeman, and he related an account of the incident with the little boy. He said that during those times of excitement, gangs of youngsters would mix with the crowds in the streets, and go into a confectionery shop or into a fruit stand, and at a given signal they would all "swipe" something from off the stand and run away, leaving one or two little kidlets to be pounced upon by the shopkeepers. They would take them out into the street and turn them over to a policeman, satisfied.

The policeman had no place to put the youngsters; as this policeman said to me, "We have no cooler into which to put these sucking kidlets, and consequently we have to let them go. They know that, and that is a part of their game, and that is why the gang bring them in; and then we have to take

between the good and the bad. The little fellow haunted me.

As the result of this morning thought, I made my plans to begin at once the composition of a book upon the subject.

And I Published a Book

called "That Last Waif," or "The Social Quarantine." Probably not one of you has seen that book, because it was published some twelve or thirteen years ago. It met with great favor, I was invited from place to place, where I met with large audiences; there was a great deal of interest in my idea of the conservation of the child.

And it occurred to me all at once that the only way properly to conserve the child is so to organize the education of the child that temptation will be removed from it; that health will be its natural heritage; and that children be reared on a sound physiologic basis to be healthy children. At that time the standards of nutrition which were being taught were so faulty that I realized if those

(Continued on page four)

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LOOK OUT! CANDY-EATERS

ONE of the most prevalent and pernicious of the many habits that are growing upon the present generation is that of candy-eating. The immense business that is being done in the line of sugar confections is visible evidence of the prevalence of the habit. This habit is one of the indications that characterize the luxurious ways into which we have fallen, and contributes in no small degree to the high cost of living.

The money consideration, though something enormous, is not the most serious phase of the evil. The harm that is being done to stomachs and other digestive organs, and the resultant weakness and disease that are being entailed upon the race constitute a far greater evil than the squandering of millions of dollars. Even the purest of sweets can not be eaten *ad libitum* without serious injury to the stomach and liver; but a greater menace comes in the wholesale adulteration of candies with substances that are absolutely injurious.

The dispatches of the Associated Press recently gave the following information:

Marshmallows sometimes is only another way of saying glue, sulphurous acid, and bacteria, according to H. C. Cassidy, special agent of the State Dairy and Food Department of Pennsylvania.

Acting on discoveries he had made in investigating the manufacture of these "delicacies," Mr. Cassidy to-day swore out warrants against twelve candy-makers. The warrants charge the selling of food unfit for human consumption.

"These warrants are only a starter," Mr. Cassidy said to-night. "My investigation was caused by complaints of numerous physicians that hundreds of school children were being poisoned by eating adulterated candy.

"What I found has caused me to wonder that thousands instead of hundreds were not poisoned.

"I have also caused the arrest of two glue companies whose product is used in the manufacture of these marshmallows. In bacteriological examinations of this glue I have found 800,000 colonies of bacteria, as com-

pared with about 160 colonies in pure gelatin per cubic centimeter.

"This glue, together with sulphurous acid, etheric flavors, and coal tar colors, is all there is to the cheap marshmallow candy that is being sold to the school children of Philadelphia for their pennies."

THE FENCE OR THE AMBULANCE

"Twas a dangerous cliff, as they freely confessed,
Though to walk near its crest was so pleasant;
But over its terrible edge there had slipped
A duke and full many a peasant;
So the people said something would have to be done,
But their projects did not at all tally:
Some said, "Put a fence round the edge of the cliff;"
Some, "An ambulance down in the valley."

But the cry for the ambulance carried the day,
For it spread through the neighboring city:
A fence may be useful or not, it is true;
But each heart became brimful of pity
For those who slipped over that dangerous cliff;
And the dwellers in highway and alley
Gave pounds, or gave pence, not to put up a fence,
But an ambulance down in the valley.

"For the cliff is all right if you are careful," they said,
"And if folks even slip and are dropping,
It isn't the slipping that hurts them so much
As the shock down below—when they're stopping!"
So day after day, as these mishaps occurred,
Quick forth would these rescuers rally,
To pick up the victims who fell off the cliff,
With their ambulance down in the valley.

Then an old sage remarked: "It's a marvel to me
That people give far more attention
To mending results than to stopping the cause,
When they'd much better aim at prevention.
Let us stop at its source all this mischief!" cried he,
"Come, neighbors and friends, let us rally!
If the cliff we well fence we might almost dispense
With the ambulance down in the valley."

"Oh, he's a fanatic!" the others rejoined;
"Dispense with the ambulance! Never!
He'd dispense with all charities, too, if he could,
But no! We'll support them forever!
Aren't we picking folk up just as fast as they fall;
And shall this man dictate to us! Shall he!
Why should people of sense stop to put up a fence,
While their ambulance works in the valley!"

But a sensible few, who are practical, too,
Will not bear with such nonsense much longer;
They believe that prevention is better than cure,
And their party will soon be the stronger.
Encourage them, then, with your course, voice, and pen,
And (while other philanthropists dally)
They will scorn all pretense, and put up a stout fence
On the cliff that hangs over the valley.

—Joseph Malins.

A DISGUSTING FOOD

THE *Scientific American* of the latest date has the following item in regard to the ordinary inhabitants of cheese: "Most gourmets like cheese that is literally swarming with maggots. These are usually bred from eggs laid in the cheese by a fly called *piophilæ*. An Italian biologist has lately been studying these larvae. He found that when they are fed to dogs they pass through the alimentary canal without affecting the animal. The canal may be scratched, however, by their oral hooks. They seem hard to kill, too, for the biologist found that some lived for sixteen hours in 70 per cent alcohol, and others lived for thirty hours in petroleum."

It was Charles Lamb who, when his grocer expressed his regrets in not having a boy who would take Lamb's cheese home for him, replied, "It does not matter; lend me a string and I will lead it home." To the unsophisticated simple-liver it is incredible with what relish some people, brought up to the manner, will chew and swallow cheese literally alive with these wriggling, disgusting creatures. To be sure, they are only the visible representatives of millions and untold billions of invisible creatures even more

disgusting if they were visible, contained in the same lump. Cheese is notoriously unclean and unfit for food, aside from its maggots; but to be able to place a morsel of matter in the mouth that is in full motion with wriggling life, and chew it with evident gust is a feat the contemplation of which makes some people shudder.

CONSERVATION OF CHILDREN

(Continued from page three)

standards were taught in the schools to the children, they would be worse poisoned than consequently it seemed to me advisable to step aside from my campaign and devote myself exclusively to developing this fundamental principle of education, the proper nutrition of the child.

I had the details of my own investigations properly formulated, and took it at once to the highest authority in this country, and

It Met with a Very Cold Reception.

It was three years before I met with any credence whatever. I was thought to be so many kinds of a crank that the authorities could not follow me in all my vagaries; hence for three years nobody paid any attention to my plea for a more economic nutrition, for the value of mastication in connection with digestion. But at the end of three years I was fortunate in getting the attention of the highest authority; and from that time it was comparatively plain sailing.

And at the end of that time, with my sub-ject they were in the condition of neglect; and jet endorsed by authority, came the impulse to make an application of it.

We have found in the city of Copenhagen a model which has been in operation for six years, which I am sure will be copied in this country; and if so, within a few years you will find that the interest in the subject of health will be increased to an enormous extent.

The means of exciting the public interest in the city of Copenhagen are very attractive.

It is a Child-Help-Carnival Day.

One day in the year, the 7th of June, is devoted entirely to children. Everybody's interest is turned toward the child. It is a carnival day like the Mardi Gras of New Orleans, like the flower parade at Nice; but it is educational and along the line of child interest. There is costuming, there are floats, there is every sort of device to attract the public attention and the popular interest. There are issued to the citizens a great number of little tin cans having handles upon the sides and a puncture in the top for dropping in the small coins; and these cans are given out to responsible parties by the tens of thousands; and in the morning one hears the rattle of these cans as they are presented to one another. The men present the cans to the women, and the women to the men; and they are continually being shaken. Rarely did we see an invitation to give that there was not a response. To be sure, they have very small coins in Denmark, the ore, of the value of about one-fourth part of a cent, and they gather them in hundreds; they have their pockets full of them, so that whenever there is an invitation to give, there is a

quick and ready response. Every sort of costume you can imagine is employed to attract the people and to interest the citizens, but what we noticed in particular was the enthusiasm for giving.

I do not think I have done half justice to the beauty of the festival of the child-help day, as we saw it in Denmark; but it is something which can be worked out by individuals in the communities according to their own fancy. One method is the giving of parties to the children of the abjectly poor. If a person has a home, it is only necessary to go out and invite a little group of ten, twenty, or thirty to the house in order to give them a party. Once a week is often enough, and it is surprising the amount of education in politeness, in manners, in dietetic righteousness, in the influence which makes for the conservation of the child, can be worked into a plan of this kind. I am looking forward to a time within the next two or three years when a child-help conservation day will be an accomplished fact in this country, and I am sure it will become a festival of great interest in this country.

THE SANITARIUM SEASONS

(Continued from page one)

cases serious consequences may be avoided, and recourse to the medical profession may not be necessary. But the world is full of people who are already ill, and who are procrastinating the day of real reckoning as long as possible. In the meantime, they are dallying along with temporizing measures while all the time they are sinking lower into the slough of difficulty. The nostrums they are buying and swallowing seem at first to palliate their troubles, and when they cease to do so, some other is recommended, and they follow that sort of leadership until vitality and pocket-book are exhausted and they are on the very border of utter collapse before they take real intelligent and positive measures to grapple with the enemy of disease that is dragging them down.

Some see this thing in its true light and yet are procrastinating the step they feel they ought to take. Not a few are wondering, as they contemplate coming to the Sanitarium, what is the very best time of the year to go there in order to get the best results in the shortest time. Again we repeat that every honest physician would say that the earlier a case is placed in his hands the easier the undertaking, the less the complications, and the smaller the difficulties to be overcome. Any trouble is simplest in its earliest stages. So no matter at what time of year it becomes apparent that the help of the Sanitarium is needed, that is the proper time to come, and the sooner the better for all parties.

But, speaking from the viewpoint of the Sanitarium and its facilities for treating disease, the work of the institution goes on uninterruptedly every day in the year, and night and day. The front door is never locked, its gates are ever open, and at all times, every day of the week, in all seasons, a stream of people are coming to receive its benefits. The work of the Sanitarium is not interfered with by the changing seasons, nor

by fluctuations in the weather or temperature.

A few years ago the photographer could only promise your pictures conditionally on the sun's shining sufficiently to permit him to print from his negatives. Now he no longer minds whether the sun shines or not, for he has the facilities for making his own sunshine whenever he needs it. It is so with the Sanitarium. The Sanitarium makes its own weather. Its acres of enclosed buildings give ample room for getting about without feeling the constraint of confinement. The temperature and ventilation of the buildings are under the most perfect control, and are always adjusted to the comfort of the guests. Electric lights make sunshine inside whenever it happens to be gloomy outside.

So that really there is not so much left upon which to choose between the times of the year. The summer season is one in which many people find it convenient to come, because it is the vacation season. Consequently the Sanitarium is filled to its fullest capacity in the summer months especially. The facilities of the institution are such that a very large number of people can be cared for without neglecting any one. The Sanitarium does not undertake to care for more people than it can care for efficiently. And yet it is patent to all that better attention can be given when the number of patients is smaller and the same force of physicians are employed as in the busier season. So that other things being equal, the spring, autumn, and winter seasons are the most favorable times to come to the Sanitarium. More attention can be given to individuals, there is a better choice of rooms available, there is more room in the dining halls, in the lobby, at lectures, and everywhere.

No season of the year is really more desirable and beautiful than the autumn. Many days of bright, sunny weather come to us in October and November, and often winter does not close in until well into December. This is the time for outdoor walks in the brisk air. The trees are gorgeous with foliage of every hue; the bounties of the harvest are being gathered in, and tables are filled with good cheer gathered from our own fields, gardens, and orchards.

This is a time, too, when the system receives the impulses of vitality and health more readily than in the lassitude of the warmer period. The evenings are long and pleasant, and each evening at the Sanitarium is filled with something entertaining and helpful, either lecture, concert, or entertainment. On Monday and Thursday evenings the family listen to lectures by the superintendent, Dr. J. H. Kellogg, an opportunity earnestly coveted by many people who do not have the privilege of sitting under the teachings of one who has attained eminence in his profession, and who is constantly bringing out facts and principles that are of the utmost value to the world. As stated by Mr. Fletcher in a recent lecture here, Doctor Kellogg keeps a few years in advance of the rest of us, so that we do not feel certain whether he is just right or not only as we see that those who have trusted to his leadership in the past and followed his suggestions have prospered in health. And as fast as the world advances on the path he

blazes out it finds that facts confirm his positions.

Dr. W. H. Riley, a specialist in neurology of national and international fame, lectures each Wednesday evening, and these lectures are in familiar terms delivered for the benefit of the layman in medical matters. Other physicians lecture from time to time; and demonstrations and lectures on diet, cookery, hydrotherapy, electrotherapy, etc., are of frequent occurrence.

We have no hesitancy in advising any and all who are contemplating coming to the Sanitarium to take steps at once to carry out this purpose. Our institution is well filled yet, but the beautiful autumn season seems especially inviting.

QUESTION BOX DEPARTMENT

Each Monday evening Dr. Kellogg conducts a Question Box talk in the Sanitarium parlor, where all guests and patients are at liberty to submit questions relating to health and health topics.

Q. How many different diseases is the large intestine responsible for?

A. Professor Roger found 161 different kinds of germs in the colon, and of these, sixty-one were disease-producing germs. They are not present invariably, only at different times and under different conditions.

Q. Is swimming good for the obese? Why?

A. It is the best thing in the world. There is no exercise so good to reduce flesh as swimming in cool water. Cold burns up the fat, and the exercise works it off. A person can burn up an ounce of fat by half an hour's stay in the swimming pool in cold water; with vigorous exercise another ounce may be burned up. Every half-hour of swimming in cold water uses up two ounces of fat. It is the most rapid and effective way of reducing flesh except starving.

Q. Why is chewing gum harmful?

A. It wears out, tires out, exhausts the salivary glands. The saliva is indispensable to the thorough and perfect digestion of food, and chewing gum depletes its quality to a marked degree.

Q. When the whites of the eyes become yellow and clouded, is the cause to be traced to the liver?

A. No, to the dinner table. It is the diet that is wrong, and the liver, although healthy, may be unable to accomplish the over amount of work demanded of it. The diet is such that toxins are produced, putrefaction is occurring in the intestine and the blood is rendered impure. The liver, in spite of its best efforts, is not able to purify the blood sufficiently to prevent some poisons being deposited in the skin and the white of the eyes, where the impurities show very distinctly.

Q. When the white corpuscles in the blood are deficient in quantity, what treatment is necessary to improve the blood?

A. The most important thing is the outdoor life,—sleeping outdoors, living outdoors, sunshine, and cold baths. After a cold bath followed by a good reaction, these white blood cells have been found to be increased one-third. It is possible to increase them thirty per cent in half an hour's time. The white cells in the blood are also increased by a hot bath, followed by a cold application and brisk rubbing.

A NOBLE STAND

THE Retail Druggist Association of Philadelphia have taken a bold step and a noble stand for a much-needed reform in declaring their unwillingness to continue the traffic of narcotic drugs in the form of soothing syrups and "comforts" to be given to infants. Here is an association willing to forego a profitable trade because of its pernicious effect upon helpless humanity and raising its voice against such a business. This is surely an unusual thing to do and as commendable as it is extraordinary.

At a recent meeting the association adopted certain resolutions, of which the following is a portion:

"We, members of the Philadelphia Association of Retail Druggists, realizing the danger to public health by the indiscriminate sale by us of habit-forming drugs, when present in proprietary or patent medicines, especially that class of prepared ones included under the 'soothing syrups' and 'comforters' designed for the use of infants; also appreciating the earnest efforts of the director of the department of public health and charities of Philadelphia to limit the sale and use of these dangerous preparations;

"Resolved, That members of the Philadelphia Association of Retail Druggists discourage the sale, unless ordered by a physician on prescription, of any proprietary or patent preparation containing these habit-forming drugs."

Ignorant mothers administer these deadly narcotics to their babes to secure quiet, and inflict upon them incalculable injury, often producing death, or at least the permanent impairment of their nervous system, and creating the strongest tendencies to the drug habit for after years. It will be well for the country when all dealers awaken to the responsibility they assume in knowingly dispensing these vicious poisons under the cover of soothing crying children.

ARRIVALS

THE following names appear on the Sanitarium register for the week ending October 2: Miss Mary Tilotson, Mich.; Rev. and Mrs. H. P. Steigerwald, South Africa; G. S. Sellars and wife, Mo.; W. E. Hunt, Minn.; Mrs. S. A. Boyer, Mich.; Mrs. V. H. Eddy, mother, and child, Mich.; John Wilkins; Mrs. F. A. Derby, N. Dak.; Jas. J. Lyle, Kans.; A. Goodholm, Okla.; F. H. Gifford, Ohio; J. Forsberg, Okla.; Mrs. H. Kramer, Ill.; F. J. Pease; Miss E. Goodenow and

Mrs. G. S. Goodenow, Mich.; U. N. Bosinger, O.; Y. A. Holman, Ala.; Minnie M. Van Pelt, Colo.; A. Marx, returned; Mrs. N. L. Arbeng, W. Va.; Mrs. N. Row, W. Va.; Rev. A. H. Leo, Porto Rico; H. M. Larabee, Mich.; I. S. Levy, Tex.; Jos. F. Hudmuth, Mich.; Wm. Butler, Mich.; T. Rosholdt, Minn.; Albert Mittendorf, Tex.; Mrs. F. J. Banta and son, O.; Miss E. M. Martin, Pa.; F. C. Edmiston, O.; T. M. Edmiston, O.; B. S. Fletcher, N. Y.; Mrs. C. E. Kimball, Ill.; Mrs. S. S. Woods, Pa.; Marjory Woods, Pa.; Mrs. R. B. Moore, Mich.; H. H. Spencer, O. C. Somerville, W. I. Allen and wife, and Laura Long, Mich.; V. S. Barker and wife, S. D.; Ben. S. Benson, Minn.; Geo. L. Hawkins and wife, Miss.; Mrs. A. A. Ivakstrom, Ill.; K. E. Pease, wife and two children, Ill.; Jas. M. Pierce and wife, and Alice Bunsfield, Ia.; Dr. Z. Marx, Ill.; L. C. York, N. Y.; W. R. Youngs, Mich.; Chas. B. Nichols, Ill.; A. D. Hubbard, Mich.; M. E. Taylor, Mo.; Miss Mete Schwartz, Mo.; S. H. Nichols, Pa.; J. P. Main, Mich.; A. W. Askins, Dr. C. S. Gregory and J. E. Dazey, Ill.; Mrs. Bertha Deil, Ill.; C. S. Neumann, Conn.; Mr. and Mrs. J. I. McConnell, Calif.; H. E. Prince and wife, Minneapolis; J. D. Spanger and wife, Cleveland; A. W. Smith, O.; P. F. Ostman, Ill.; F. V. Balls, Mich.; Etta J. Gillion, Ind.; Mrs. Frank Rohier, O.; Helen H. Rohloff, Chicago; Mary V. Dryden, Ill.; Mrs. E. C. Hinds, Miss.; Mrs. J. W. Phillips, C. E. Kimball, Chicago; Mr. and Mrs. S. V. Staley and child, W. Va.; Ed. Cowles, Ky.; H. D. Jones, O.; Mrs. H. Edson, baby and nurse, Porto Rico; Mrs. C. H. Hudson, W. Va.; Miss Carol Klink, N. Y.; Allen Holman, Alabama; C. S. Neumann, Conn.; Rev. John Harvey Hopkins and wife, Chicago; James Coultas, Jr., Mich.; Dr. H. T. Whitney, Mrs. H. T. Whitney, China; E. F. Teft and wife, Ill.;

F. M. Walter, Tex.; R. T. Pierce and wife, Mich.; E. S. Hackney and wife, Pa.; Anton Schatzel and wife, Del.; E. B. Brokaw, O.; E. C. Martin, Wash.; Mr. Mortensen and wife, Wyo.; G. B. Hallard; Geo. Dickie, N. D.; Mrs. M. A. Warren, Neb.; R. M. Williamson, Ill.; J. C. Windsor, Tenn.; Mrs. Laura Dickinson, Ind.; Mrs. Milton D. Goldman, Ia.; C. E. Bueck, Tenn.; F. H. Forbes and wife, Ind.; W. E. Dennis and wife, A. F. Cooper and wife, and Mrs. F. L. Cooper, Pa.; J. H. Seyton, N. J.; A. T. Golly, Ill.; H. W. Mount, Ill.; Chas. E. Bates and wife, Ill.; J. W. Simpson, Jr., Tenn.; Florence V. Lopey, Mich.; O. P. Davis, Ill.; J. E. Baker and wife, M. F. Baker and wife, and Miss Ona L. Foster, Ia.; W. R. Show, with Judge Wallin; Alice L. Donahue and Luina Wamsley, O.; Albert E. Dennis and wife, Ill.; Robert Elliott and wife, Tenn.; E. M. Bryant, Ohio.

News and Personals

We note with pleasure that the health of Miss Abbie M. Colby, a recent patient at the Sanitarium, is so far re-established that she is able to return to Japan to take up her work as a missionary in Osaka.

The cut on our first page this week represents a game of indoor baseball in progress in the Sanitarium gymnasium. The windows are well protected, and the ball is large and soft, so that it is not a formidable missile in case it goes astray. These games are usually played between teams made up in different departments, and are accompanied with no small enthusiasm as the friends of each side cheer on their favorites.

Dr. J. H. Kellogg will be absent much of the time next week filling engagements in

THE MEDICAL MISSIONARY

An Illustrated Monthly Magazine Devoted to the Interests of Home and Foreign Medical Missions

Contributions direct from all parts of the field represent the work of medical missions in various parts of the world as carried on by all denominations.

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The Battle Creek Idea (Weekly)\$1.00 per year
Good Health (Monthly)1.50 " "
The Medical Missionary (Monthly)50 " "

These papers will be combined at the following prices:

Battle Creek Idea and Good Health\$1.85 per year
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Good Health and Medical Missionary1.35 " "
All three journals one year2.10 " "

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Texas. He lectures in Dallas on the 12th, at Austin on the 13th and 14th, and at San Antonio on the evening of the last date.

We were pleased to have with us for a few days Dr. H. T. Whitney and wife, of Foo Chow, China, where they have labored as medical missionaries for a number of years. They made but a brief stay at this time, but were so favorably impressed with what they observed that they have decided to return and spend the winter with us.

Mr. N. R. Staines, who has charge of the men's department of the Swedish Mechanical rooms, reached his seventy-fifth birthday on Sept. 29. The event was celebrated by a family gathering and reception in the evening. A pleasant feature of the occasion was that several of the lady nurses came in and sang beautiful songs. Mr. Staines is the father of Mrs. Foy, the superintendent of nurses, and the reception was after her initiative.

Through the kind suggestion of Miss Harriette Williams, a guest of the Sanitarium from Chicago, an elocutionist of high merit, a benefit entertainment for the Haskell Home for Orphans is planned. The date fixed is the evening of October 15, and the place the Sanitarium gymnasium. Miss Williams will be assisted by Miss Mary Ross as soprano soloist. It is hoped that a full house will be given this undertaking so worthy of the consideration of all.

The Sanitarium family were highly entertained on Tuesday evening by Mr. Nat. H.

Brigham, formerly U. S. Inspector for Utah, and more recently a celebrated traveler in the mountain regions of the West. The subject of the lecture was "The Grand Canyon of Arizona," and was fully and beautifully illustrated by stereopticon and moving pictures. The lecture and the pictures combined furnished an entertainment that for instructiveness and interest has seldom been excelled.

Dr. W. W. Hastings, the principal of the Sanitarium Normal School of Physical Education, returned from the East with his family in time to be at the opening of the school

on the 4th inst. Steps have been taken to place this school upon an excellent basis in every respect. There is a strong faculty, headed by Dr. J. H. Kellogg as president and Wm. W. Hastings, Ph. D., as dean. Dr. B. N. Colver is secretary. The incoming class is composed of vigorous and earnest men and women fully bent on making good marks on the world before they leave it.

Rev. Kingsley E. Pease, of Singapore, accompanied by his wife and two children, was at the Sanitarium for a few days. During his stay Doctor Pease addressed the Sanitarium family, much to our edification. He is

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A SPECIAL FEATURE of this School is that students are given an opportunity to meet a large part of their expenses by employment of a character that will aid them in their training.

Address all inquiries to

The Sanitarium School of Health and Household Economics,

LENNA F. COOPER, Director,
Battle Creek, Michigan.

principal of a boys' school in that city with 1,500 boys in attendance, constituting the largest missionary school in the world. Mrs. Pease is in charge of the school home, where about one hundred persons are cared for. She remains for treatment, while her husband engages in work with the Laymen's Missionary movement.

A new class was inducted into the Sanitarium Nurses' Training-school on the first of the month. The class contains at present a little over thirty members and others are coming to join it. It is an unusually bright and interesting body of young people, evidently in earnest in seeking to fit themselves for some useful place in helping to bear the burdens of humanity. On Wednesday evening the April class gave a reception to the new class in West Hall parlor. This was an enjoyable occasion and was largely attended by the nurses and the faculty of the training-school.

Dr. J. H. Kellogg and Mr. M. W. Wentworth, respectively superintendent and business agent of the Sanitarium, went to Rome, Georgia, last week at the earnest call of a committee of the citizens of that place to advise with the committee concerning the establishment of a sanitarium in that city along the same lines as the Battle Creek Sanitarium. They report the people of that community as being wide awake to the development of the great resources of their part of the country, and full of spirit for the public welfare. Sites were examined, conditions studied, and plans discussed. The prospect seems good for the people of Rome having a sanitarium of their own.

The Sanitarium Christian Endeavor Society gave a reception to the missionaries resident in the institution in the East Hall parlor on the evening of the 5th. There were about a dozen missionaries present, and after the social hour addresses were made by several, including Doctor Whitney, of Foo Chow, and Mrs. Bashford, of the Methodist China mission. Doctor Kellogg voiced the welcome greetings of the Society for our honored visitors. Light refreshments were served and all enjoyed the evening. The next meeting of the Society will be held in the chapel on Friday evening at 7:45, and Doctor Kellogg will lead. The topic is, "Forward Steps in our Society." The meeting last week was one of special interest. The attendance was large, and the music was enhanced by a beautiful song by a ladies' quartet.

The Sanitarium W. C. T. U. held its regular meeting Tuesday evening, October 4th, at the home of Mrs. F. C. Wells, 127 Manchester street, with Mrs. Emmons presiding. Appropriate music for the occasion was furnished by a quartet and was much appreciated. Devotionals were very ably conducted by Mr. Owen, of the Haskell Home. Delegates were elected to the District Convention at Quincy, Mich. The program was under the direction of the Flower Mission Department, and the assistant superintendent, Mrs. W. O. Palmer, read a very interesting paper which she had prepared, telling the origin of the Flower Mission and its object,

after which each one present related some little incident wherein the giving or receiving of flowers had been helpful. The wearing of the white ribbon wherever we go was urged. Let every W. C. T. U. woman be faithful to the wearing of the beautiful bow of white ribbon which means so much to the cause we love. Adjourned to meet in the parlor of the Sanitarium October 16th.

Dr. James T. Case returned from his visit to New York and Philadelphia this week. The object of his visit was to study and take observations in the most recent developments of the use of the Roentgen rays for diagnosis and therapeutic purposes. This art is making rapid advancement into great utility in medical work, and the Sanitarium managers have taken steps to maintain this department in the most approved and recent manner. Doctor Case secured considerable additional apparatus for the use of the X-ray department, of which he is in charge. On his way home he spent three days in Detroit at the annual meeting of the Roentgen Ray Association, of which he is a member. At this meeting many interesting developments in this section of medical science were brought out. Among others, he mentions moving pictures showing the movements of the human stomach in the digestion of food. As Doctor Case remarked, to stand in the visible manifestation of these hitherto unseen truths gives one an unknown thrill of the intensest interest.

Rev. Wm. Ashmore, of Swatow, Southern China, an efficient missionary of the Baptist Board, has left us for another long campaign in the field and is much improved in health. His father, the celebrated Doctor Ashmore, was for many years an eminent missionary in the same field.

The Sanitarium continues full. Never before at this season of the year has the institution entertained so many guests as at

present. The two large dining halls are hardly adequate for seating capacity, and the annex is still used. The opening of schools has taken away quite a number of our summer guests and their families, but their places are no sooner vacant than filled by others who have come to take advantage of the beautiful fall weather, perhaps the most favorable time for the recovery of health. And while the patronage is thus large, it may also be truly said that never before were so many people being sent away happy in the possession of health and vigor which they have sought and have regained.

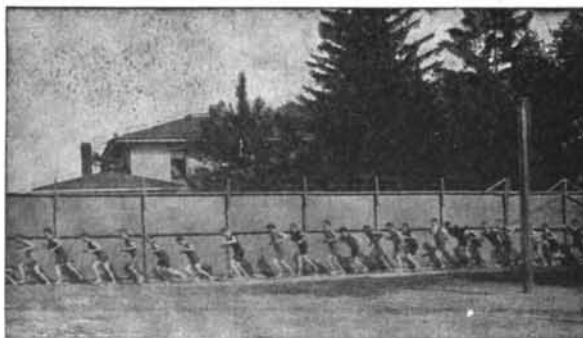
The Rev. Alex. H. Leo, of Ponce, Porto Rico, a missionary of the Methodist Church, is spending a few months in the home-land recruiting his own and his wife's health. Mr. Leo has just spent a week with us, and at the conclusion of this visit it was arranged that he should return and spend the remainder of his furlough here with his wife, who is in need of treatment, while they both study the principles and working of the institution, with which Mr. Leo became very deeply impressed. During the time they are here he will assist in the religious work of the institution as pastor. In addition to his usual work as missionary, Mr. Leo, seeing the great need of the people for medical help, established medical missionary work in the form of free dispensaries. Though not a physician by education, he has an intelligent sense of the needs of the people, nearly half a million of whom are victims of the hook-worm disease. Upon his own initiative and responsibility he is establishing a very extensive system of relief. He has three physicians engaged to return with him, and expects to have a dozen or more dispensaries in operation very soon. We are very much pleased with the prospect of having this active, energetic Christian worker and eloquent preacher with us for a few weeks.

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Tuition for the full year, \$100, including Summer School; for the rest of the year, \$75. For the Summer Term alone, \$35. Board \$3.00 to \$3.50 per week.

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SANITARIUM, Battle Creek, Mich.

THE BATTLE CREEK IDEA



Vol. III No. 45

BATTLE CREEK, MICH., OCTOBER 14, 1910

Price 2 Cents

The A B C of Good Living

Elementary Principles Held by Mr. Horace Fletcher, as Stated by Himself in a Lecture at the Sanitarium, Sept. 13

At the present moment we are all familiar with the word "conservation." There probably has never been a nation so prodigal of its rich resources as the American people. And we are beginning to feel the results of

What Does It Cost

This is a Question that Presents Itself to Many Who Contemplate Coming to the Sanitarium

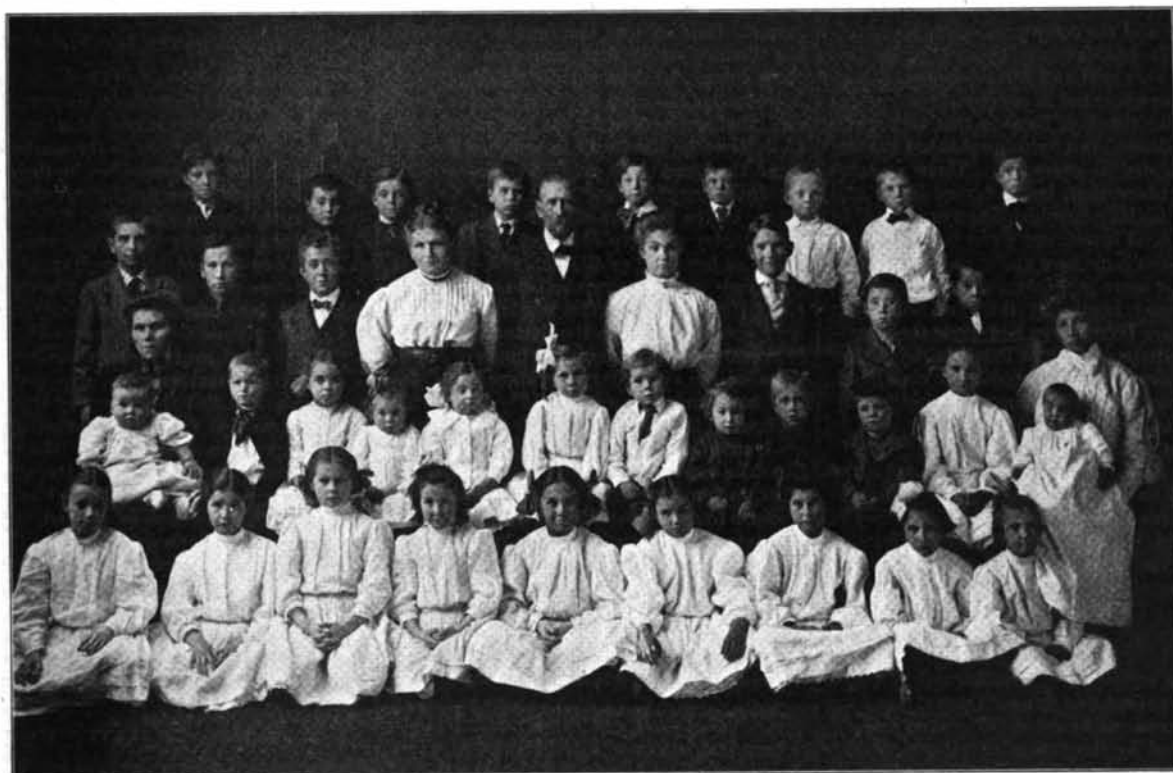
SICKNESS is readily recognized as an expensive misfortune. No one feels that he can really afford to be ill. But illness forces itself upon people uninvited, or at least unwelcome, and asks no questions as to their

Sleeping Out of Doors

Dr. J. H. Kellogg Speaks of the Advantages of Living in the Open

In response to the question, "What would you advise for a person suffering from general weakness, but with no disease?" Doctor Kellogg (in a recent lecture) said:

I advise that person to cultivate health.



THE HASKELL HOME FAMILY

the waste. We are beginning to look to the future, and to see how we are going to replenish the waste. We hear of the conservation of the forests, of the mineral resources, of the water privileges, but not so much of the more important departments of conservation, namely, the conservation of health and

(Continued on page three)

readiness for its visits. The thing to do when sickness comes is to give it attention. Slight attacks of indisposition may be fought off, but even that is fraught with danger, for it may return in double force, and if our illness results from erroneous habits we shall have to reckon with it sooner or later as sure as fate.

(Continued on page four)

That is all such a person needs to do. He should eat calories enough for a person of his height. If he is a little under weight, he should eat a little more than 2,000. He should take a moderate amount of exercise.

He Should Live and Sleep Outdoors.

I do not know anything that has so much

lifting power as sleeping outdoors at all seasons of the year. Sleep on a porch or in a room with the windows wide open and the air moving vigorously through. I have slept under those conditions myself for a good many years. I have the windows all around my bed wide open, and I often wake up in the morning in the winter and find snow on my bed; and frequently have to break the icicles off my beard in the winter. My family sleep in open porches. We do not suffer, because these outdoor beds have an electric mat in the bed just over the mattress, and by touching a button, the bed is made nice and warm and dry before we enter it. In winter when our folks go to bed, they are dressed as if they were going to take a sleighride. They are thoroughly bundled up from head to foot, with thick hoods on their heads, long enough to pull down over the face. No matter how cold the wind blows, they are warm. If they wake in the night and find it is colder than they want to be, it is only necessary to touch a button and turn on the current, and one is warm again in a moment. So it is not necessary to use a very large amount of bedding.

Outdoor Sleeping Has an Objectionable Feature

unless we combine with it a heating plan. Through the evaporation of moisture from the body and the condensation of this moisture in the bed clothing, by and by the bed becomes very cold and full of dampness, and unless the whole bed is exposed to warm, dry air during the day, there is this very great inconvenience. But by using this bed warmer the difficulty is overcome. There is some expense about that, but not very large, and there is nothing in which it pays so well to make a good investment as in health. Some of you who come here and spend a thousand dollars or more in a long journey and an extended stay here, just think of what you might have been if you had made the investment perhaps of fifty or one hundred dollars a few years ago and started in the right road. Of course, I should not have had this fine audience before me if you had all been doing the right thing.

I am glad you are here; but I am sorry you had to come, and I hope you will come again some time and let us see how well you are; and I am telling you these things so that when you get through here you may graduate with honors and not have to come back.

Getting Well

is just a matter of cultivation, and of training. A patient said to me, "Doctor, how long will it take me to get well?" I replied, "I think that by the first of April you will be in pretty good condition." "Oh, so long as that? How can I ever stay so long?" She ought to stay that length of time. It would not be more than she ought to and could invest with the greatest profit; but I said, "Well, perhaps, if you are real good and obey orders strictly, we can let you off the first of January."

We do not claim to work miracles. We are farmers. All we can do is to sow the seed and cultivate the crop, and you have to wait for the crop to grow. This is a natural process of cure; it is not a magic cure. If you

sow a certain kind of seed you can raise a certain crop. But it takes time to raise a crop of health, as it does to raise a crop of corn or a crop of wheat. Sometimes it takes longer. We see our crops of health growing up, maturing, coming to harvest a great deal more rapidly than we used to.

I am sure to-day we are able to accomplish in five or six weeks for a patient more than we could accomplish in as many months five or six years ago. The secret is in the fact that we have discovered this matter of auto-intoxication; we have found the causes of these troubles, and we know just how to counteract them. We know what the cause of a man's trouble is, and that is half the battle; then we know how to remove that cause, and we know it can be done; and that is the rest of the battle. So

The Victory is Practically Won.

I do not suppose there is a person present who can not be made immensely better by cultivating health, eating right, and adopting the outdoor life. I am sure the average man does not appreciate at all the great value of outdoor life. We now know that people can get well at home just as well as if they should go to Colorado.

It is the outdoor life that helps the consumptive. Here is a man, and one of his lungs is already invaded with these dreaded germs. Half of that one lung is gone with the disease, yet if that man goes out to a farm colony, he does not do a thing but sit down under the open sky and breathe fresh air. Perhaps he does not eat just as he ought to eat, yet he does well in spite of it; because the benefits he gets from the outdoor air are so great.

One of the first out-of-door institutions in this country was established at Rutland, Vt., and they have 300 or 400 patients. I visited the place not long ago in the winter. It seemed rather cold. The windows were all wide open. I said to the doctor, "At what temperature do you keep the house?" "The same as the outdoor temperature." "Don't you have any heat on at all?" "Yes, half an hour in the morning to dress by, and half an hour at night to go to bed by." "Suppose the temperature gets down below zero, what do you do then?" "Oh," he said, "then we have to go outdoors to get warm." Think how economically an institution could be carried on on that plan, doing nothing for those patients, except to feed them; and yet sixty per cent of those patients were getting well.

Now, if they had all the advantages we have added to this life outdoors, half the remaining forty per cent could get well.

Doctors Are Beginning to See That.

I have had letters within the last few weeks from superintendents of hospitals all over the country making inquiries about our ways of feeding people, expressing their interest in it; and the medical profession everywhere is waking up to the importance of dietetics, of nutrition; and if so much can be done by the outdoor life, it is a thing we can not afford to ignore. I hope that when you go to bed you will remember to open your windows. If you have not bedding enough, call for more, and you will be surprised to-morrow. Do not allow yourself to be cooped up in the house; but go right outdoors. Do not

be afraid of cold air; it does nobody any harm.

The old idea was that cold air produced consumption. It does not at all. I met a gentleman a day or two ago who had been visiting the zoological garden in New York. The superintendent has turned his monkeys all outdoors, and they are thriving. Hagenbach, the great animal tamer, has written a book entitled "Man and Beast," in which he tells how he catches animals in the forests of Africa and Central Asia, and how he takes care of them. He tells how he thought he had to keep the ostriches in a warm place, but he tried the experiment of having one side of their house open, and he was astonished to see those ostriches running out into the yard after a heavy snowstorm and capering around in the snow, and enjoying it immensely. He has found that by giving the animals an opportunity to become hardened they are fortified and enjoy the winter, and improve in health.

You can see the monkeys at the zoological garden in Chicago in the coldest winter weather, shivering in the cold, knocking the snow off their shoulders, and yet they are thriving. They had tuberculosis, but they are cured of it. Doctor Trudeau injected six rabbits with tubercular germs. Three of the rabbits he put outdoors; three he kept in the house.

The Rabbits in the House All Died,

and the rabbits outdoors all lived. Formerly, when a cow had tuberculosis, they would kill the cow, remove the tuberculous parts, and send the rest of the body to the markets, and the people buried those cows in their stomachs. The people are finding out about that, and are making a stir about it; and the Massachusetts State Board of Health has adopted new tactics; so now, instead of killing the cows that get tuberculosis, they turn them out into specially prepared pastures, and they get well. We supposed, twenty years ago, that goats did not have tuberculosis, so it was customary to give goats' milk to people who had the disease. But it has been shown by further investigation that goats may have tuberculosis. Goats ordinarily live outdoors, but take the goat and shut him up indoors and treat him as the ordinary domestic cow is treated, and the goat gets tuberculosis as quickly as the cow. It was formerly supposed that animals that eat meat did not have tuberculosis. But in the zoological garden of London it was found that carnivorous animals shut up indoors have tuberculosis and die of this disease, the same as other animals that are shut up.

THE NEW HASKELL HOME

SINCE the fire destroyed the main building of the Haskell Home, in February, 1909, the work of the institution has gone on with but slight interruption. We give the readers a view of the new home and its family, soliciting your friendly interest in the work we are endeavoring to do for those who have been so unfortunate as to be thrown upon the world without the sweet blessings of a happy home and loving parents. The building, though not as large and imposing a structure as the former one, we find to be much better

suited to our present work. The outer walls are of solid brick and the construction throughout is such that it may be considered practically fireproof. The building is 45x60 feet, with porches extending nearly across each end and one also at the front entrance. These end porches are designed to furnish outdoor sleeping apartments on their upper floors.

As we enter the front door into the reception hall, the first object to catch the eye is the old clock, which was rescued from the burning building—the only witness that stopped to mark the time of night the fire occurred. At the left is a cozy parlor facing the south and east, where one may rest as in the quiet of a private home; across the hall to the right is the office, the furniture of which was rescued from the fire. Here also is a bookcase designed for children's books, though books suitable for young readers are at present conspicuously absent. Our juvenile books were left among the ashes of the ruins. We hope to see their places filled by a good library selected with care for the development of our children and youth. Next, we come to the living-room, opening with double doors at the end of the hall.

This is the largest, the lightest and the dearest room in the house. It is home. Here the children gather for family worship; here their voices are trained to sing the sweet songs of home and heaven; here they learn to mingle their voices in prayer. By opening two sets of double doors the parlor and hall can be made into one room with this one and give a seating capacity for nearly two hundred persons. Here the children entertain their friends at times with their recitations, select readings, and songs. We next come to the dining-room by way of the passage from the front hall, passing by the boys' lockers on the right and the girls' clothes room, wash-room, and bath-rooms on the left. Through this passage the children march in order, usually singing some little chorus as they go to their places at the three long tables in the dining hall.

The food consists chiefly of grains, fruits, and vegetables, with the best of milk from our own dairy. The glow of health upon the rosy cheeks bears testimony to the advantages of healthful diet among children. The kitchen and pantry adjoining are managed chiefly by our esteemed cook, Mrs. Scott, who knows just how to prepare food suited both to the palates and the stomachs of children.

Returning to the front hall, we pass up the enclosed stairway, lighted by the frosted glass. On the second floor we have the music room, matron's rooms, sewing room, and the girls' sleeping apartments; the third floor is devoted to sleeping rooms for boys. There are thirty-five rooms in all, besides the numerous closets, steam-heated and furnished with hot and cold water, and lighted with acetylene gas lamps.

The building and its furnishings, however, constitute but a secondary part of the institution. That which is of the most vital interest is the group of happy children, who are the joy and life of the place. We should like to speak of each one, for each child has a history of its own. Some would be brief, for they have only recently awakened to the realities of life and know nothing of its sorrows. While others have wept over them,

they have only looked up and smiled. They find themselves with those who love and care for them, and what care they for more? Others have already tasted the bitterness of the cup of those who are deprived of the joys of a happy home and loving parents. Some could tell the sad story of how the curse of rum blasts the prospects of an innocent child. Others could tell how jealousy and hatred crept into the home circle to break up the peace and extinguish the light from that home forever.

Here they are gathered into one large family, and the task given to those in charge of the Haskell Home is to restore the light of love in these young hearts and provide them with such a home as God designed they should have when he instituted the home and family in Eden. Our Eden here consists of seventy-two acres of land, quite a portion of which is set to fruit and usually produces an abundance. Some fifteen hundred young fruit trees are growing up to take the place of

first about the conservation of health and efficiency, because most of you are here on that account.

Under the Primitive Conditions

under which man was created or among which he existed away back in prehistoric periods, this question of health and efficiency was not one of interest, because man was naturally healthy; he was adapted to his surroundings, and his surroundings were made so to fit him that he was compelled to follow the natural requirements. There were none of those diversions which now lead us far astray and into temptation. Consequently, when we dig out of the strata of the earth the remains of primitive man, we find that, although the skeletons have the appearance of being those of very aged people, perhaps as old as Methuselah, they still retain the thirty-two teeth, well worn, perchance, but without decay; and the evidence of those remains is that man was extraordinarily healthy in those days; because



THE HASKELL ORPHANS' HOME

those which were injured by freezing some four years ago.

We are endeavoring to make the home self-supporting as far as possible, and our success in this respect has been such that we keep our bills paid and the wolf has not yet entered our door.

RODNEY S. OWEN, Supt.

THE A B C OF GOOD LIVING

(Continued from page one)

efficiency; the conservation of the child, who will be the citizen of to-morrow; and the conservation of our political self-respect, which never will be attained until the original purposes of the American government have been satisfied, and in the words of Lincoln, the government has become "of the people, for the people, and by the people." And, fortunately, we have here to-night representatives of these three fundamental departments of conservation. I am going to speak to you

nowhere do you get the evidences of dietetic transgression so soon as in the teeth. Bad teeth are the best evidence of disordered conditions along the line of the alimentary canal.

Knowing this to be a fact on the evidence of these anthropological remains, it is easy to argue ourselves into a state of satisfaction as to the reasons for that extraordinary condition of health and efficiency which prevailed in prehistoric times. It leads us to believe, to know, in fact, that disease is not a natural heritage; it did not grow up with the primitive man, but is the result of what we call civilization, of luxury, of plethora, of temptations to excess. And following out that line of reasoning, we are able to determine the direct causes of our disabilities.

Dietetic Sinning Is Responsible

There is probably not one person in this audience who may not in large part trace his disabilities and diseases to dietetic sinning. We in this age are the victims of autointoxi-

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AN INTERESTING AGE

No one having his eyes open can question the statement that the age in which we are living is the most interesting the world has ever seen. We can not forecast what the future may have in store, but looking over the past, we surely have reason to be glad that we live when we do. There are those who admire the old stagnant days, when the current of life ran slowly if at all. For hundreds of years things remained in an almost stationary situation, the stream of life was sluggish. Darkness, ignorance, and superstition prevailed in the minds of the people. But suddenly there came a change in the current and the stream began to rush impetuously down like water through a chute, and to-day we find ourselves in an era when things are happening all around us with the most startling rapidity.

Forces for good and evil are actively at work. One is undermining the foundations of the race physically, mentally and morally. Wreck, ruin, and death are all about us. The papers overflow with accounts of disaster, crime, destruction, and sudden deaths. On the other hand, the forces of righteousness, the influences which build up and save the race are also actively at work, and reform, conservation, and progress are in the very air. Were Rip Van Winkle to awaken now he could scarcely find a trace of the days and associations of his youth. He would find himself living in a world practically new and strange. He would be frightened off the streets by the sight of cars and "beels" running at hip. He would be alarmed at the din and the smoke; he would be run over by the rushing crowd; he would be the victim of microbes of which he never dreamed; he would be exposed to so many dangers, and compelled to take so many chances, that he would probably wish he had never awakened.

But we who were to the manner born, who have seen this condition grow upon us by degrees, have come to love it, and to look upon the old, slow-going ways of our ancestors with extreme pity, and congratulate ourselves that we did not have to ride after an ox team, spin and weave our own clothing

by hand from flax and wool, and carry our own corn to mill on horseback with a stone in one end of the bag for a balance.

But at the same time we are paying a high price for the fun we are having. Not only in the cost of living are we taxed for our luxuries, but in the harvest of broken-down men and women, nervous and physical wrecks that are the direct result of sowing such seeds as we are scattering in our fields by our reckless ways of living and rushing. As much as we condemn the plodding and ignorance of our fathers, we have reason to envy their sound health and the privilege of dying peacefully of old age. We may envy them many of the comforts and enjoyments they got out of life in taking more time for sociability, for being content with small farms, small responsibilities, small profits, and small fortunes to leave for others to squander. They had time to give to the amenities of life, and time to serve God as well as to look out for their neighbors' welfare.

The Wise man says it is a foolish habit to be inquiring why the former days were better than these, and we are not doing so, but if we only could mingle the extraordinary opportunities and knowledge we have with the modest ambitions and homely ways of the past generation we should be happier, and the evil trend of things would receive a noticeable check.

The man who recently shot the Whirlpool Rapids in a launch is generally called a fool; and yet he is off the same piece with the rest of us, for we are all shooting rapids even as dangerous as the Whirlpool, and few come out unharmed, for morals and intellect are in danger, as well as health and life. He was tossed about and had no time to enjoy his ride; he was shot twenty feet into the air at one time, turned upside down, whirled around, and rolled over, in his mad rush through the seething waters, and at last his boat was dashed on a rock, where it stuck and from which he was rescued by friendly hands. Thousands of people are clinging to the rocks in deadly peril to-day. The smooth water of the placid river takes more time, but it affords far more of real enjoyment, it lengthens out the span of life, and gives better assurance of a successful career.

WHAT DOES IT COST

(Continued from page one)

It is vain to seek to smother the signals of warning by the use of opiates. Pain is not the real enemy; the enemies which threaten our lives are the habits or practices that lie behind the pain as its cause. The invalid, therefore, must first become intelligent as to the nature of his troubles and what caused them. Then he needs to know what to do to meet the situation successfully and in the shortest time consistent.

It is but natural that he should

Apply to His Family Doctor

for advice. He generally impresses upon the doctor the assurance that he has no time to be sick, that he wants something to fix him up in the very shortest time possible; he does not care to inquire into the causes so long as

he gets quick relief. If he does not get it, he will change his doctor, and the doctor knows that, so he tries to give him what he wants. He is all right in a few days, apparently, and goes on in the old ways, but before long the spectre of disease again knocks at his door and the doctor is again called into service. After repeated experiences of this kind, and after deserting his faithful doctor and going hither and thither, and taking this and that, he finds himself incapacitated for business, down and out. He has fooled away a lot of time, his business has suffered, his doctor bills and medicine bills are something formidable, and he is actually worse off than when he began; indeed, he has no real relief, has several bad habits attached to himself, and his outlook is not at all satisfactory.

His Friends Tell Him of the Sanitarium,

and he wishes he might be there and receive its advantages, of which he has heard so much. He is now willing to take time and grapple with his troubles in an intelligent and earnest way. So far, he has been temporizing, and has lost out in the process. Now the time has come for earnest effort or his life will soon be forfeited.

But he thinks of his own home that he must leave, of his business that will suffer, and perhaps most of all his bank account that has by this time suffered considerable depletion. How much will it cost? How much is it worth? Health! O, if I only had health, I could be happy once more. I could retrieve my fortune, I could enjoy my friends, I could resume my part in society. Without it, all is over. He writes to the Sanitarium, "Can you cure me? What will it cost? How long will it take?" No man can answer those questions. He may be reasonably certain of a cure; set that down. There are very few of the cases that are accepted that do not receive marked benefit, if not complete cure. How long will it take? We can assure the man that it will not take any longer for nature to restore what he has lost than it has taken him to lose it. The period of penance will not be longer than that of transgression. If he has been fifteen years destroying his health, nature will be kind to him and not exact day for day, but, as shown in Doctor Kellogg's lecture, it will take long enough to raise a crop of health from an entirely new sowing. He has to break up the fallow ground and sow the seeds of right living, and when the harvest begins to come in, it will be health.

Now, as to the Cost.

We have to speak no longer from the patient's point of view, but from that of the Sanitarium. We want to say once more that the Sanitarium is not a money-trap. It is not managed and maintained for gain. No person in the world has one cent of financial interest in it beyond his salary, which is sure to be a modest one. The Association which owns and controls the institution is a benevolent and philanthropic one, and there is no such thing as profit-sharing, or profit-bearing stock or membership. The Association aims to support its work from its income, to pay its debts, and to extend its beneficent work as widely as possible. It looks forward to the time when it shall be able to place the

benefits of the institution before those unable to pay for what they get, and in a measure they are doing that now. It is not likely that the time will ever come when those who are able to do so will be asked to pay less than the cost of their care and treatment, but the poor should have these benefits also.

Actual Cost

The figures furnished from the accountant's department show that the actual cost of feeding, rooming and ordinary treatments for one week is about twenty-four dollars. The Sanitarium is equipped and managed in the style of a really first-class hotel. In no city of size would such accommodations be found in a hotel of this class for less than three dollars per day. But hotel attendance and attendance upon sick people are two very different things. A person in a hotel is able to and is expected to look out for himself. To be sure, a certain amount of attention is paid him in his room and at table. But invalids must be tenderly cared for at all times, night and day. Their wants must be anticipated as far as possible, and every provision must be made for emergencies that are constantly arising. The food must be very carefully selected and prepared and daintily served. The most intelligent and conscientious employees only can be used, and the utmost order, quiet, and cleanliness must prevail.

All these necessary provisions add to the cost of entertainment, to say nothing of the small army of doctors, nurses, dietitians, and medical attendants that are looking after the physical welfare of the guests. It requires the closest calculations to keep the prices charged at a point where they will cover the running expenses and not go beyond the reach of the people.

It is not fair to hold the Sanitarium responsible for the mistake of not coming here sooner, before your case became so complicated, nor is the Sanitarium to be blamed because the money has all been spent in other directions before coming here. The fact that your illness still remains and is only aggravated after all that you have done, is unfortunate for you and for the institution as well, as it makes our work all the harder. But, taking all into consideration, there is no doubt that the Sanitarium presents the most favorable chances for the invalid in recovery and in expense. Recovery is the great desideratum, and the surest and safest methods are the cheapest.

But the Sanitarium

Not Only Affords to Its Patrons a Temporary Cure

for their ailments, it undertakes to educate all who come to its doors for aid in the care of their health, so that they need not relapse into their old conditions. The effects of its treatments do not diminish as time goes on, but cumulate and work in the system with ever-increasing potency so long as the person persists in the ways indicated. A relapse into the bad ways that have induced disease will surely result in a recurrence of the trouble, perhaps with fatal effects, but the person who comes here, learns the source of his troubles, finds relief and goes home and carefully avoids those causes, will increase in health and strength to perfect recovery.

This article does not undertake to give specific prices, these may be obtained from circulars supplied on application, but in general terms it seeks to place the real situation before those who contemplate applying for relief and yet hesitate on account of the apparent cost. No one, however poor, can afford to be ill. And in seeking relief it is better to secure good, reliable, rational assistance than mere temporary relief that only disappoints.

THE A B C OF GOOD LIVING

(Continued from page three)

cation, by which I mean not intoxication caused by taking into the body from without poisons like alcoholic drinks, but autointoxication caused by the poisons which are generated within the body by the putrid decomposition of an excess of the protein or nitrogenous element taken as food.

There are many resources within the body for taking care of the abuses. The kidneys are worked overtime, the liver is worked overtime, the pores of the skin are worked overtime; all of the excretory organs are worked overtime, and they are worn out, and some of the diseases from which mankind suffers in this age are the result of the breaking down of these agents of excretion. But there is a resource on the part of nature for disposing of perishable foods beyond the natural excretory organs, and that is the putrid decomposition of the excess of food. Now, that is a grewsome picture, and it would not be at all kind of me to put this picture before you, especially those of you who are constantly thinking about yourselves, your troubles, your diseases, your disabilities, if I could not at the same time give you a very practical remedy. And that is my object.

When I was forty years of age,

I Was a Sick Man.

I was denied life insurance. I was very obese. I could not run three times the length of a car to catch it to save my life, without having a spasm of coughing, and perhaps great palpitation of the heart. I was in a very disabled condition. I lay my reform, my regeneration, to the fact that I was denied life insurance for these disabilities, and at that time was able to retire from business, and having the time at my disposal, I determined to take up the study of the subject. The story of the conquest for good health, for rejuvenation, has been told so many times that I am not going to repeat it here, but as the result of turning my attention to the study of the subject of my dietetic sins and the results, within twenty years I not only have become an extraordinarily well man, but I have been enjoying progressive recuperation measured in terms of muscular efficiency for the past fifteen or eighteen years, and at the age of sixty-one I am in better condition, all told, than I ever was in my life. My blood-pressure was taken the other day, and whereas the normal for a young man is set down at from 95 to 110, I, at sixty-one years of age, and with a history of abuse behind me, due to this rejuvenation have a record of something short of 100, showing

that the blood is flowing easily, quietly through my veins without much friction, and I know that this is true, because I feel within myself the energy of youth and all of the joy of such resources.

THE WORTH OF A BOY

SOME value a boy by the work he can do
At the house and the barn and the woodpile, too.
Some count up the cost of his board and his clothes,
And doubt if he pays for his keep, I suppose.
The work is all right; he should do what he can;
But the worth of the boy is in making the man.

The future will tell, be he large or but small,
If he's worth a whole world or nothing at all.
Let him set his mark high, and then press to the goal
With all of the might of his body and soul.
And you'll see by the light which his coming day gives,
He will make the world move by the life that he lives.

There's a station of honor, a position of trust,
Awaiting the boy who is faithful and just.
And the great God of heaven looks down through all space
For the one faithful boy who will fill that one place.
And you, my dear lad, though you know not the way,
May be chosen to fill that position some day.

Then gird up the loins of your mind for the race,
Subdue each dark passion. Look the world in the face.
Do the work that is given with patience and skill,
And learn every lesson with resolute will.
Fight manfully on 'gainst temptation and sin,
And God will assist you the victory to win.

The worth of a boy, whate'er his expense,
Is not to be reckoned by dollars and cents.
Would you know his real value, mark the price that was paid
When to ransom his soul Christ died in his stead.
You ask why such ransom a poor boy would bring.
This is the secret: "He's the child of a King."

RODNEY S. OWEN.

ANOTHER INNOVATION IN RAILWAY TRAVEL

If it is the growing time for Canada, it is also the growing time for the Grand Trunk Railway System. The popularity of the International Limited, the finest and fastest train in Canada, has made larger cars an absolute necessity in order to provide room for the growing traffic. The result of this is a much heavier train, and in order to handle this train larger and swifter locomotives have been especially designed and built. But before this was done the 80-pound rail was replaced with 100-pound steel. After all that is the foundation—the roadbed.

The cafe parlor cars, which have done service since the establishment of this splendid train, are now replaced by new diners which are pioneers in their way. The new cars are 70 feet 7 inches long, 10½ feet wide, 14½ feet high. They are equipped with six-wheeled trucks and have steel platforms. They are heated with steam from the locomotive and equipped with electric lights, electric fans, etc. The dining-room is finished in African mahogany, the chairs are made of Mexican mahogany, upholstered with black leather. These cars were made in the Montreal shops of the Grand Trunk Railway.

New parlor cars similar in excellence to the dining cars are operated on the International Limited.

BALLAD OF THE FLY

BABY bye,
Here's a fly;
By the state he's doomed to die,
Since he brings
Germlike things
On his legs and wings.
Countless millions of the same
Have their lodgings on his frame.
His offense
Is immense,
Hang his impudence.

See him pass
Bold as brass,
With a buzz that's full of "eases,"
'Sz--'ez--'sizz!
There he is
On the grub, gee whiz!
See him with infected feet
Walking on the bread and meat;
Then the whim
Seizes him
In the milk to swim.

Baby bye,
Shun the fly.
Pure food sharps will tell you why.
'Tis no joke,
They will soak
Fly-protecting folk.
Therefore, get your little ax,
Slay the "musca" in his tracks.
Don't delay!
Haste to slay!
Little fly, good day, good day!
—Pittsburg Chronicle Dispatch.

ARRIVALS

FOLLOWING is the list of arrivals at the Battle Creek Sanitarium for the week ending October 9: Mrs. C. H. Hoagland, City; Dr. C. C. Rozelle, Ind.; Mr. and Mrs. A. Gilbert, N. Y.; V. A. Powell and wife, Pa.; Hugh Gelucke, Mont.; Mrs. E. A. Crain, N. Dak.; Walter B. Downs, Ill.; Winifred Marrow, Mich.; Aug. Forslund, Ind.; Mrs. J. R. Thorman, Mich.; Mrs. Dr. A. J. Cook, Cleveland; Miss Edith E. Holbrook, Mich.; Aaron Moss, Ind.; J. C. Murray, San Francisco; Mrs. Joe J. Roach, Tenn.; Mrs. F. H. Wade, Ala.; G. W. Pullen and D. M. Bottoms, Ala.; Nat. M. Brigham and Emil Holstein, Ill.; John J. Helm, Miss.; F. A. Ames, Ky.; E. W. McMannon, Ga.; J. C. Chilson, Tex.; Mrs. A. G. Huggett and Mrs. J. E. Smith, City; Alva C. Smith, Cleveland; T. J. Norton, Chicago; Ed. Briggs, N. J.; C. M. Hickman, New York City; Mrs. R. W. Beall, Pa.; Mr. and Mrs. H. L. Chapman, O.; Miss R. E. Matthews, City; N. T. Hinkey, Kans.; Mrs. C. M. Pence, O.; E. M. Taft, Mass.; Mrs. Max Goldsmith, Chicago; Cordelia M. Archer, City; Harry Messer, Ill.; C. L. Wise, Pa.; Samuel Gompers, New York City; G. W. Parkins, Chicago; Frank L. Molholland, Toledo; Mrs. T. K. Kirby, Kalamazoo; B. J. Bogan, Ind.; John J. Helm, Miss.; J. S. Culp and Mrs. Culp, Ill.; O. W. Herrick and wife, Ind.; V. S. Barker, S. Dak.; H. C. Potter, Jr., Okla.; R. F. Sams and wife, Ga.; C. C. Kimball, Chicago; W. I. Birzele, Ill.; Mrs. Geo. Humphrey and Mrs. Lewis Valentine, Mich.; Mrs. Clayton G. Bailey and Miren Hegeman, N. Y.; Lillian C. Winans and Alice Winans, Ia.; Geo. C. Hollereth, New York City; Joseph Baum, Ind.; Jay Wilcox, Mich.; Chas. F. Haunemanon, Ia.; Mrs. C. A. White and Miss M. J. Irvin, O.; Mr. and Mrs. J. E. Rundough, N. C.;

Chas. E. Bates, Chicago; Catherine I. Glenie and Mrs. F. L. Bockus, Buffalo; Rufus Martin and wife, Pittsburg; C. B. Horner, O.; Rev. Geo. Elliott, Detroit; T. E. Steiner and wife, O.; Mr. and Mrs. Wm. Carpenter, Cincinnati; Mrs. S. W. Bradford and Henry Furst, Jr., Chicago; E. E. Noble and Eva E. Noble, Okla.; Lily J. Mitchell, Minn.; Chas. Anderson, Ill.; Wm. McPherson, Jr., and H. N. Spencer, Mich.; Ethel Young and C. D. Warner, Mich.; Mrs. Nels Johnson, S. Dak.; R. M. Williamson, Chicago; Ed. Smith and wife, Ia.; Miss Anna B. Cook, Ind.; H. D. Mount, Chicago; Mr. and Mrs. Harry S. Stokes, Tenn.; Geo. J. Alexander, Chicago; J. H. Giltner, Ky.; Mr. and Mrs. Henry Vogel, Cincinnati; S. F. Kress, Pa.; Mrs. A. C. Giltner, Ky.; Paul R. Smeck, Pa.; Mrs. C. W. Furbee, Mrs. J. L. Coplegard, and H. R. Furbee, W. Va.; E. H. Sebring and wife, and Mrs. F. Sebring and daughter, O.; O. W. Burdats and wife, and Mrs. L. Burdats, W. Va.; W. H. Kilpatrick and wife, Neb.; Ed. E. Leonard, Ia.; W. H. Howry, Miss.; C. I. McColleston and wife, Ill.; Mr. and Mrs. A. G. Cummer, Fla.; A. W. Smith, Cleveland; Mrs. J. B. Meyler and Mrs. Lena McKees, Ky.

News and Personals

Mr. and Mrs. W. H. Kilpatrick, former patients of the Sanitarium, have come from Beatrice, Neb., for treatment.

Mr. R. F. Sands, a prominent manufacturer of fertilizer in Atlanta, Ga., is taking a course of treatment in the Sanitarium.

We are accompanied through life by two wonderful painters who are ever making pictures; they are, Memory and Hope.

Dr. O. W. Burdats, of Wheeling, W. Va., has brought his wife and his mother to take a course of treatment at the Sanitarium.

A reception to the students of the Normal School of Physical Education was given at the home of Professor and Mrs. Hastings on Tuesday evening.

Among recent arrivals at the Sanitarium are Mr. and Mrs. Charles E. Bates, of Chicago, who were here as patients twenty-five years ago.

Mr. Samuel Gompers, president of the Federation of Labor in the United States, was a guest at the Sanitarium for a short time on Thursday of last week.

A recent arrival list shows the names of Professor B. J. Bogue, of Granger, Ind.; Mr. O. W. Herrick, a prominent grocer of Valparaiso, Ind., and Mr. G. A. Ames, a manufacturer, of Owensboro, Ky.

A letter of good cheer comes from Miss Jean Gordon, of India, who is rejoicing in the prospect of returning to her field of labor. She says: "My thoughts often turn gratefully to the Sanitarium and to those who did so much for me."

Among the list of patients we note the names of Mr. George C. Hollerith, the City Surveyor of New York City; Attorney H. C. Potter, of Ardmore, Oklahoma; Mr. E. B. Spafford, of Detroit, the manager of the Continental Casualty Co., and Mr. A. E. Dennis, Vice-President of the Oscar Daniel Company.

Mr. John G. Leuke, of Riverside Drive, New York City, has been spending a few

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To certain West, South-West, North-West, South and South-Eastern States on First and Third Tuesday of each month. Return limit 25 days. Full information gladly given.

L. J. BUSH, Pass'r Agt.

\$3.60

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Tickets on sale Oct. 26th, 27th and 28th. Return limit, Oct. 29th.
Please ask for any particulars.

L. J. BUSH, Pass'r Agt.

days at the Sanitarium, having accompanied his wife hither, who remains for treatment. Mr. Leuke has the distinction of being the largest paper manufacturer in the United States, one-fifth of all the paper used in this country being produced at his mills.

Miss Lenna Cooper, of the Sanitarium Domestic Science Department, has just returned from Chicago, where she reports much interest is being taken in the demonstration of health foods under the direction of Miss Ella K. Thompson. Several of the leading restaurants of Chicago are using these delicacies.

Rev. J. M. Moore, Professor of Psychology and Ethics in Knoxville, Tenn., is taking a course of treatment at the Sanitarium. Professor Moore also has the chair of Bible Exegesis in Knoxville Theological Seminary. Dr. and Mrs. Moore are spending a little time here and are being greatly benefited by their treatments.

The Sanitarium pulpit was occupied on last Sabbath by Rev. Geo. Elliott, D. D., of Detroit, one of the most eloquent speakers of the Methodist church in Michigan. The discourse was well received and made a deep impression in the minds of those who heard it. In the afternoon of the same day Mrs. J. W. Bashford, of China, wife of Bishop Bashford, delivered a most eloquent address on the "Chinese Situation."

A most delightful entertainment was given in the Sanitarium parlor on the evening of the 11th instant. The entertainer was Miss

Josa Madelon Quinn, of New York City, a girl of twelve years, accompanied by her mother. The exercise consisted in the recitation and impersonation of familiar child poems by Field, Dunbar, Miller, and other writers. The young artist displayed remarkable talent and the large audience was from first to last greatly pleased with the performance.

The Christian Endeavor Society had a good meeting on Friday night. It was well attended. Miss Lilian Babcock gave a violin solo with organ accompaniment by W. H. Drever. Dr. J. H. Kellogg was the speaker

of the evening, the subject being "Forward Steps in Our Society." He showed how each individual member could do personal work in forwarding the Endeavor movement, and gave instances from personal experience of the value of individual work for the Master. He reminded his hearers of the unique opportunities they had for personal work.

The subject for next Friday is, "Your Amusements: do they build up or tear down?" Rom. 5:1-3. Ps. 36:7-12. Dr. Carolyn Geisel will lead the meeting.

By a recent letter received from Miss Edith Buck, of Siam, we are gratified to learn that

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VIA

The Grand Trunk Railway System

Tickets on sale to California, Nevada, Arizona, Mexico, Aug. 25 to Sept. 9th, also Oct. 1st to Oct. 15th. To Colorado, Utah, Wyoming, Aug. 25th to Sept. 9th; also Sept. 15th to Oct. 15th. To Montana, Idaho, Washington, Oregon and Canadian Northwest, Sept. 15th to Oct. 15th. Stop-overs allowed at certain points. Full information gladly given.

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SCHOOL of DOMESTIC SCIENCE



A CLASS DEMONSTRATION

The Fall Term begins September 14, 1910.

COST {	Tuition	\$50.00 per year
	Room (with room-mate)	1.00 per week
	Table board	2.00 per week

A SPECIAL FEATURE of this School is that students are given an opportunity to meet a large part of their expenses by employment of a character that will aid them in their training.

Address all inquiries to

The Sanitarium School of Health and Household Economics,

LENNA F. COOPER, Director,
Battle Creek, Michigan.

The Battle Creek Sanitarium School of Health and Household Economics furnishes two courses in Domestic Science, based upon the principles of Health and Hygiene as established by the most recent findings of scientific investigation.

THE ONE-YEAR COURSE

Is especially designed for matrons and housekeepers, and those who desire education and training in Cookery, Dietetics, Chemistry, Home Nursing, Household Economics, and kindred subjects.

THE TWO-YEAR COURSE

This course gives necessary instruction and training to prepare those who take it to fill positions as dietitians, lecturers, and demonstrators.

Details of courses are given *in extenso* in the Annual Announcement, which will be sent on application.

she is doing such excellent work in the schools of the land of her adoption. She speaks most gratefully of the benefits she received while here, and says: "I regard the Battle Creek Sanitarium as a friend to whose force I am much indebted." She alludes with gratitude to a class in hydrotherapy which was organized for ladies during her visit at the Sanitarium, and tells how, by its means, she was enabled to save the life of a typhoid fever patient from her school.

Mr. S. F. Kress, manager of a large factory in eastern Pennsylvania, is making his first visit to the Sanitarium. He has been a reader of *Good Health* for many years, and has come here to confirm its ideas and to get into touch with the principles it advocates. He is receiving benefit from the treatments, and reports that he has already done considerable in his community to introduce the Battle Creek methods of living, and feels confident that the health of many has been restored, and in one case even life saved, by the adoption of its principles.

Alexander Potchincev, M. D., a graduate of the American Medical Missionary College in the class of 1910, left us some weeks ago for his home in Bulgaria, and attended, on his way thither, the annual meeting of the International Gynecological and Obstetrical Congress in St. Petersburg. An interesting letter from the doctor describes the meeting, including the beautifully decorated halls and the notables present. Great pains were taken by the Russian authorities to honor the meeting in every possible way. The doctor speaks enthusiastically of the proceedings and the valuable facts which were brought out in the meeting.

The Elks' band, of this city, the finest organization of the kind in the county, under the leadership of Mr. W. T. Drever, musical director at the Sanitarium, will give a concert in the gymnasium on the evening of October 18. A small admission will be charged and the proceeds will benefit the band and the Sanitarium orchestra. The following program is promised:

Overture—Poet and Peasant	Suppe
Waltzes—Olas de Plate	Falkenstein
Serenade—Amina	Lincke
Contraalto Solo—My Heart at the Sweet Voice	St. Saens
MRS. JOY C. HUBBARD	
Selection—Attila	Verdi
Fantasia—My Old Kentucky Home	Dalbey
March—Under the Double Eagle	Wagner

This will be an entertainment of high merit and will no doubt attract a large attendance.

The Sanitarium parlor was occupied on Sunday evening by a large gathering assembled to listen to Dr. Harry L. Canright, formerly of Battle Creek, but for the last nineteen years medical missionary in Western China. Doctor Canright was reared in our community, graduated in Ann Arbor, and practiced two years before going to a foreign field. The doctor is located in the province of Szechuan, in the extreme west of China, in Chentu, the capital city. Almost single-handed, he has built up a very large work, erected a hospital containing one hundred beds, besides doing a vast amount of work for the betterment of the Chinese people throughout the province, where he is well and favorably known. His many friends extend to him and to his devoted wife a most hearty welcome home for a year's furlough.

Miss Daisy Wallace, a graduate of the School of Domestic Science, has accepted a position as dietitian in the home of Mr. and Mrs. Williamson, of Kentucky. Mr. Williamson is a banker and a prominent man of wide interests in his community. During his recent stay at the Sanitarium he was so much benefited by the treatments and diet that he has made this provision to insure its continuance at home. Another patient is so much improved by the benefits of the system followed in the Sanitarium that he has decided to take with him upon his travels one of the young men from the nurses' department, who has for this purpose taken a special course in dietetics, under the principal of the School of Domestic Science.

We give place this week to matter relating to the Haskell Home in the form of an article from the superintendent, Mr. Rodney S. Owen, and two fine photogravures. The communication will be read with interest. We are glad to be able to say that this worthy home has never before been in such good hands as now. Mr. and Mrs. Owen are indeed father and mother to these motherless ones. As noticed last week, there is to be an attractive entertainment in the gymnasium next Saturday night for the benefit of the library spoken of by Mr. Owen. Tickets at twenty-five cents each are being rapidly sold, as everybody, practically, is glad to give this mite to such a worthy object. We hope none will lose the opportunity of assisting. The entertainment will be by Miss Williams, of Chicago, as entertainer, and Miss Mary Ross, of Battle Creek, as soprano. Both these ladies have the best of talent at their command.

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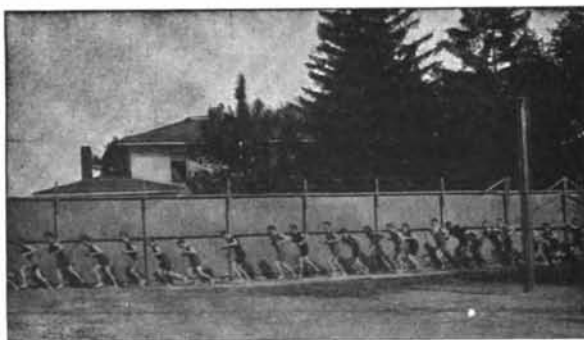
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Normal School of Physical Education

A Great Opportunity for Men and Women

A Two-Years Course. Each year comprises thirty-five weeks and an eight-weeks Summer Course.

By Affiliation with the American Medical Missionary College and the Battle Creek Sanitarium the students of this School enjoy extraordinary advantages in the study and practice of Physiology, Anatomy, Hygiene, Chemical Analysis, and the various methods of Treatments that have made this institution famous.



The Equipment is complete in gymnasium, laboratories, and swimming pools.

Tuition for the full year, \$100, including Summer School; for the rest of the year, \$75. For the Summer Term alone, \$35. Board \$3.00 to \$3.50 per week.

Unusual opportunities are given for earning money toward expenses.

For full particulars address:

WM. W. HASTINGS, DEAN,

SANITARIUM, Battle Creek, Mich.

THE BATTLE CREEK IDEA



Vol. III No. 46

BATTLE CREEK, MICH., OCTOBER 21, 1910

Price 2 Cents

THE A B C OF GOOD LIVING

Elementary Principles Held by Mr. Horace Fletcher, as Stated by Himself in a Lecture at the Sanitarium, Sept. 13

DOCTOR KELLOGG, from this platform, has many times told the Sanitarium audiences that if they would follow the advice I am going to give you to-night it would not be

Nature the Only Healer

Medicines Do Not Cure Disease, Neither Do They Heal Wounds Nor Restore Tissues

GREAT claims are put forth by people for various remedies and cures, and even men and women lay claim to the credit of healing this and that case. It is the prevailing sup-

FLESH EATING NOT ESSENTIAL FOR STRENGTH

Doctor Kellogg, in the Sanitarium Parlor, Answers the Question, Do Not Flesh-Eating Nations Rule the Earth?

It is true that the flesh-eating nations rule a part of the earth, but they do not rule the whole of it, by any means. Which of the flesh-eating nations rules China, for example?



BATTLE CREEK SANITARIUM OF 1878 WITH ITS FIRST ADDITION

necessary for you to come here for treatment, and you would come here simply to rest and enjoy yourselves. But you have not done it; it is not probable that many of you will do it; but, having given you the secret, as I am going to give you here to-night, then it is up to you to avail yourselves of it or not; and if you do not want to do it, we should take it for granted that you prefer to be sick and not enjoy the recuperation which nature vouchsafes.

(Continued on page three)

position that sores are healed by ointments and salves, that sickness is cured by draughts and potions, that drugs and combinations of drugs have the virtue to repair injuries and correct abnormal conditions, to supply new tissue and create vitality. Such is not the case, however. The sole and only power that can heal the sick, or repair a bodily injury, or restore natural conditions is the power inherent in the system to restore itself. Ointments or bandages or any sort of exter-

(Continued on page two)

Which flesh-eating nation rules Japan? Are we not scared half to death (some of us) for fear Japan will come over here sometime and do something to us? The Japanese are not meat eaters. They are rice eaters and wheat eaters. They eat almost no flesh at all. The Japanese peasants, the strongest men of the nation, do not eat meat at all. If they have any flesh at all it is just a little salted or dried fish that they use to flavor their other food, and it does not really constitute any essential part of their diet. There are forty

Original from

UNIVERSITY OF MICHIGAN

millions of people in Japan who practically eat no meat at all.

Forty millions of people live in a country that is only about three times as large as the State of Michigan; so they have no room for pastures, and

We Are Going in the Same Direction.

The time will come in America when all our land will be required to raise food. If the people of England to-day were dependent upon the cattle raised in their own country for meat, they could not have it.

The population of the earth is increasing, and a time will certainly come when the human family will have to fall to eating one another, or renounce the use of meat, because there will be no room for the raising of the cattle necessary to supply the markets of the world. That is one reason why the price of meat is rising, the land is needed for agricultural purposes.

Some time ago there was a strike against the use of meat, and it was a very interesting strike to me, because while there were hundreds of thousands of people who took a vow that they would eat no meat for four weeks or six weeks, not a single person expressed any sympathy for them. It is true that Doctor Wiley did say that if we gave up the use of meat we should become mollycoddles; but when I met him at Chautauqua and shook hands with him, he did not hint at such a thing; but said, "Doctor, I am greatly interested in what you are doing at Battle Creek, and I want to co-operate with you in every way I can." He said, "Of course, you and I pull on different strings sometimes, but then, we are all aiming for the same purpose, to accomplish the same things, and we can work together for these things." And he gave me a very hearty greeting, and I was very pleased to receive it. I do not want you to think I am criticizing Doctor Wiley at all. He is doing stalwart work for reform.

Those Japanese that fought those meat-eating Russians

Did Not Act Like Mollycoddles.

You have heard remarks about what they call "the yellow peril." Why should we meat-eating Americans be afraid of those vegetarian Chinese? Those fellows do not have any beefsteak; they are brought up on rice; why should we talk about the yellow peril when those fellows have no beefsteak and can not get it? We can beat them, of course, because we have beefsteak on our side! You see, my friends, nobody has a bit of faith in that proposition, when you come to get down to the truth about it.

At a great medical meeting at Toronto a couple of years ago, Doctor Halliburton, the great English chemist, arose and objected to a paper somebody had read, advocating Doctor Chittenden's low-protein ideas. He said, "Do we not know that a little handful of English in India are holding all those millions of effeminate inhabitants of that vegetarian race under control? It is English roast beef that does it." And he really thought it was true, I suppose. He had not resumed his seat before a splendid Brahman with a swarthy complexion was on his feet, and he said, "The doctor says that the Hindu can not fight because he does not eat meat. Now,

I am perfectly willing to admit that the Hindu does not fight; but it is not because he can not fight; it is because he does not want to fight.

"I am a Brahman;

I have never tasted fish, flesh, fowl, nor eaten eggs in all my life, nor did my ancestors for many generations back; they have never tasted any of those things. If there is any gentleman here that wants to test the quality of my physical development, I shall be happy to compete with him this moment. I am the secretary of the Athletic Association of Madras."

Doctor Ramarao was a very cultivated gentleman, a professor in a medical college of Madras, a thoroughbred Hindu, who had never tasted flesh in all his life, nor had his ancestors for hundreds of years. He was one of the finest looking men in that whole assembly—a large, tall, splendid, broad-chested, broad-shouldered man, an athlete, and he was an argument that they could not meet. The whole medical assembly recognized the fact that the doctor's argument was completely answered by the man himself. They did not require any more argument when that man stood up there and challenged the whole assembly, and there was nobody willing to accept his challenge; so they gave him a tremendous ovation; and that was the answer to that argument.

Doctor Ramarao came here and stood where I am standing to answer questions that were thrown at him by the assembly, and he replied in the most lucid manner, and with the most eloquent diction; I envied his command of the English language. It was a delight to listen to him. He shows what is the result of long ages of a fleshless diet, of what it has done to build up the body and make it strong and vigorous.

I Was Reading Thoreau's Walden

the other day. It is well worth while to read it. He has discoursed upon the subject of diet. He ate no meat. He lived for five years in a little house he built in the woods near Walden pond, and he kept an account of all he ate for eight months, and the actual cost for food for that eight months was \$8.64. It cost him just twenty-seven cents a week, and he had all he wanted to eat, improved in health, and had a fine time. He lived chiefly on rice; he raised beans and sold them and bought rice instead. He made hoeecake with a mixture of rye and cornmeal. One of his neighbors, a farmer, said, "Doctor Thoreau, if you do not eat meat you can not make bones." And he says, "What a silly fellow that farmer was; there he was driving his oxen before him to plow up the ground, pulling that heavy plow and yanking him along after it, and those oxen were making bones with vegetarian food, out of grass; yet that man thinks he has to eat the oxen in order to make bones for himself." There the ox was a perpetual argument to the man that bones could be made of something besides flesh. This doctrine that flesh is a necessary article of food is pretty nearly exploded, and I think very few who have given it any thought have faith in it at the present time.

It is true, however, that we must have meat for food. One must have meat; and he must

have the real thing. He does not want any bones or any second-hand meat, but he wants the real thing, the original meat. And if you will turn to the first chapter of Genesis, you will find that when God made man he gave him orders that he should eat meat. Here it is: "And God said, Behold I have given you every herb bearing seed which is upon the face of the earth, and every tree in the which is the fruit of a tree yielding seed; to you it shall be for meat." Now, that is the original meat, that is the real thing. The fruit of the tree, and the seed of the herb, they are the things that God gave us for meat; and they are real meat. Flesh of animals is an unnatural and unhealthy kind of meat, but the flesh of an apple is normal, healthy, legitimate meat.

NATURE THE ONLY HEALER

(Continued from page one)

nal agency whatever can no more reunite tissue that has been cut or torn asunder or crushed or bruised, or restore wasted tissue, muscular, nervous, bony, or otherwise, than a sticking plaster could heal a rent in an iron pipe.

This is No Extravagant Statement,

as may be ascertained by anybody who will carefully observe the healing process of a cut or burn or bruise in the human body. It requires something more than the naked eye to discover all that is being done, how the delicate fibrillae of the blood fibrin are used in bridging over and uniting the several parts, how the white blood corpuscles rally to defend against germs and to supply building material; and how the red blood furnishes material and life for the parts as the process of rebuilding goes on. But enough may be seen by the naked eye to show that the healing is done by the system itself, and not by any material that is supplied from the outside. New tissue is created, not from salves and ointments, but from the blood.

And what is true of external injuries, which we are able to observe, is equally true of every vital crisis in the bodily economy. The healing of the abnormal condition must be done through the power that works in the tissues, and which is inherent in the tissues themselves, and by no other means can it possibly be done.

It is in this doctrine that the teachings and practice of the Battle Creek Sanitarium are unique. This great truth is the basis of the Sanitarium system, or what is denominated "The Battle Creek Idea."

It is the Claim of This School

that the human system is capable of maintaining and sustaining itself in normal and healthy action for a long term of years, barring accidents, provided that it can be protected from outside foes and harmful agencies, and that it can be supplied with the nourishment best suited to its wants, in proper quantities, and receive rest and exercise in proper amount.

The human machine is capable of repairing itself and keeping up its vitality and performing its legitimate functions provided it can have the proper care and attention. That, we may say, is true of any machine.

But it is not true of inert and insensate matter as it is true of the sentient and vitalized human body. A mechanic may weld iron, solder various metals, may cast and forge metals, and supply bolts, patch boilers, renew wornout and broken parts. The machine of wood and iron has no power to repair itself; we can not feed it iron, brass, and wood and allow it to make its own repairs, as we may give food to the body with which to make its own repairs.

No human being, and no human agency, be it medicine or baths, or what not, can repair the human body as a tinsmith mends a pan, or a machinist repairs an engine, or a carpenter repairs a house. The only way that can be done is by the system itself, and the only part we can act in the matter is to supply the material in the shape of food, drink, and air, and in protection. We are called upon to supply the material and the conditions, to remove the obstructions we have placed in the way; to cease our abuses, and to provide for the proper care and nourishment of the body, and leave to the inherent vital power that dwells within us the work of repair and healing.

The idea that we can

Cure Disease by Swallowing Medicines

is rank folly, and every intelligent medical man and woman knows it. The impression that baths, or electricity, or any other means we apply, perform the cures we see take place is utterly baseless and untrue. That is not the purpose for which they are administered, nor does the Sanitarium rely for its results upon any such supposition. The secret is to restore normal conditions, so that the body can care for itself. If there is sufficient vitality left, there will be a miracle of healing performed. That diseased condition will be driven out and the symptom be replaced by natural action. If the system is not given a chance to rally and get on its feet once more, if the load is not lifted and the obstruction removed, the end will come. The machine will stop, and when once it stops it can not be started again.

In disease there is a derangement of the circulatory system, or the digestive process, or the nervous system, or the muscular, or the respiratory systems; for some cause they are no longer able properly to perform their work. Perhaps there is an accumulation of fat or a deterioration of muscles, or a congestion of blood, or a disordered liver, or weakened stomach, or some one of the thousand ills to which the flesh is heir, and which we carelessly inflict upon ourselves. What is to be done? O, call in the carpenter or plumber with his kit and material. Let him put on a plaster here, add a tonic there, give a little stimulus there, and some physic. Ah, he has done it, the injury is repaired, and on we go!

No; the doctor told you to let up on your eating, he told you to leave off your tea, and to stop eating meat and grease, and to correct your habits in perhaps other ways, and to satisfy your expectation he gave you some harmless stuff, or took some measures to correct existing conditions and give nature a chance, and you were soon feeling better, and gave all the credit to the doctor and his medicine. Of course he is not so forgetful of his own interests as to correct your im-

pression; he naturally is willing enough you should think so, and so the false impression goes on.

Now, the Battle Creek Sanitarium aims to get at the causes of the trouble, and to tell the patient what those causes are, and with the patient to make common cause against the disease by co-operating in the most intelligent way with the body in its efforts to throw off the disease and to resume normal action. To do this, only natural methods and resources are relied upon. There must be good and proper food, fresh air, proper rest, relief of congestion and the encouragement of the natural processes of nutrition. This is accomplished through a system that is thoroughly scientific, and by means which actually build up and develop strength and vitality.

We Have a Plethora of Food;

in the second place, we have aggressive hospitality which almost forces us to eat. We look upon it as a social function instead of a sacred function, which it really is. We are really gluttons at the altar when we are serving on the altar of our efficiency. We are gluttons, and not because we want to be gluttons, but simply on account of our carelessness. We go to the table worried; we go to the table thinking of business; we go there sometimes to argue and to quarrel with each other, and all the time cultivating the conditions which are prejudicial to good digestion, to our good nutrition. This being the case, it is necessary for us to cultivate the science of right eating in order to protect ourselves from the offenses. I



THE SANITARIUM ADMINISTRATION BUILDING AND WEST HALL

THE A B C OF GOOD LIVING

(Continued from page one)

Mind you, if we were living in primitive conditions we would be compelled to do the right thing. Food would be found in such form that we would be compelled to bite it out of the envelopes in which it is found; if we wanted to make sugar out of the cane, it would be necessary for us to crush the cane with our teeth and treat it with the saliva instead of having it done in a mill in the South, then crystallized in the refinery. If we wanted to get sugar from the beet, we would have to take it in the same way. If we wanted to get sugar from starch, which is an entirely indigestible thing in its native form—if we wanted to convert that into glucose, or dextrose, or grape sugar, which is the assimilable form of starch, it would be necessary to do it in the refinery of the mouth, which is very effective. As I say, the natural, primitive conditions would compel us to do that; but our conditions at present are a great menace.

In the first place,

have been giving now some twelve or thirteen years of unremitting attention to this subject, with the best talent in the world, physiologically and otherwise, assisting me in every way possible, with demonstrations going on in different parts of the world to prove the value of the fallacy of the hypotheses which we were working out; and as the result of that twelve or thirteen years we have reduced the formula for the human responsibility in the matter of nutrition which puts us in a position to perform right nutrition in the presence of all these luxurious, complicated foods,—and it has been reduced to perhaps 300 words. But instead of 300 words, it practically can be given in about twenty. I wish to make some striking remarks that will set you to thinking about this thing.

Here you devote yourselves to counting your calories and to thinking about this subject and having it drilled into you that you must do this and do that, and properly enough, because you have thousands of bad habits to correct. You have false ideas about what nutrition is, what digestion is, and in fact you know so little about it that it requires a great deal of teaching to bring you

(Continued on page four)

The Battle Creek Idea

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BATTLE CREEK, MICHIGAN

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VOL. III OCTOBER 21, 1910 No. 46

THE ETHICS OF GOOD HEALTH

"ETHICS" is defined as the science of human duty. It is moral science. There is a moral duty resting upon every individual to preserve his health. It is the positive duty of each one of us to maintain his body in the very best possible condition for service. There is earnest work to be done, and this overburdened world of ours has more need of pushers than of passengers. There are plenty of people who choose to ride, and there are plenty of people who have to be carried, and a real good able-bodied man or woman is a blessing to the world, for the world has need of such people for supports, and for burden-bearers.

Not only so, but everybody owes it to himself to be in perfect health. It is only in good health that we are capable of doing the best work in any line. It is thus only that we can enjoy the blessings of life and be the men and women that God designs us to be. Next to character, health is the very best human asset and equipment for usefulness.

The prevailing impression that we have a right to use or misuse our bodies as we think fit is untenable and mischievous. Our Creator has just claims upon us. We belong to Him. He asks that we present our bodies to him, a living sacrifice, holy and acceptable, for service. No one has a right to sacrifice his strength and his magnificent powers of mind upon the altars of Bacchus or lust. No one has any right to render himself unfit for the highest service through gratification of the appetite. There is a moral element in the preservation of health, and sickness is the fruit of transgression, and when preventable, it is tainted with moral guilt.

A very proper sense of shame and moral weakness comes to a person who has to confess that he has eaten more than was good for him, simply because the food tasted good. When a man in any way incapacitates himself for the best efforts through sensual indulgence, if he still retains a conscience, he feels remorse, and is sensible that he has sacrificed his manliness and his godlike standing through a weakness of the flesh.

The man who stands in dignified command

over his appetite and fleshly demands is a man in the highest sense of the term. No man is true to his God who is not faithful in dealing with himself.

THE A B C OF GOOD LIVING

(Continued from page three)

back to the primitive conditions where you approach food with the proper reverence, with the proper respect, giving it its due value in order to get the best there is out of it in the form of nutrition, energy, health, and endurance.

I Want to Make This Impressive.

Perhaps I shall fail, but I am going to try. If we are sick, we are sick because we have been dietetic sinners. Now we want to learn dietetic righteousness. The human responsibility is confined to a very small area. The alimentary canal, where digestion and nutrition are effected, is anywhere from twenty-five to thirty feet long—coil upon coil of complications within the body. It begins at the lips. The first two or three inches contain the human responsibility. In the other twenty-five or thirty feet the responsibility is upon nature, and over it we have no control. We have absolute control over that portion that is within the first three inches of the alimentary canal, above the guillotine line. I want you to be impressed with the idea that all of our responsibility is above the guillotine line, where all the senses are bunched. If it were not that we needed it to use, to walk around with, to pitch hay with, and to play golf with, we could get along just as well without this body as not. If the head had wings like the cupids of Raphael, it would not be at all necessary to have this complicated body. This is merely a machine to move the head around; consequently the whole responsibility is above the guillotine line; and I say "the guillotine line" because it is at the point of decapitation that our volition in the work of digestion ends. I want to make that impressive. It is a thing to remember—where our responsibility is, and not to go all over the lot seeking to meddle with nature's business. She can do her work so much better than we can; but we have to do our part right. We have to feed the food into the hopper in the right kind of way. It is necessary for us to treat it in the right way, otherwise there will be trouble all along the line of the alimentary canal.

QUESTION BOX DEPARTMENT

EACH Monday evening Dr. Kellogg conducts a Question Box talk in the Sanitarium parlor, where all guests and patients are at liberty to submit questions relating to health and health topics.

Q. Can rheumatism be cured by a Sanitarium diet?

A. Unquestionably the adoption of an antitoxic diet, such as we employ here, is one

of the most important and essential measures in the cure of rheumatism. We have seen thousands of persons recover from rheumatism here, and I think the diet was really the most essential thing.

Q. Is climbing steps beneficial for a person in delicate health?

A. Yes; going up and down stairs is splendid exercise. There is nothing better than mountain climbing as an exercise, and if you have no mountain in your vicinity, use the stairs; they will answer just as well. It is a capital exercise for the lungs and for the muscles. When one is going upstairs he is lifting his body. If it is twelve feet between floors, and you climb up the stairs one story, you have lifted your body twelve feet. Suppose your body weighs one hundred pounds; then you have done 1,200 foot-pounds of work; and if the body weighs 200 pounds, you have done 2,400 foot-pounds of work, simply in going upstairs. It is a good way to take exercise if you want to know how much work you have done.

Q. What is the best diet to increase red blood-cells?

A. The antitoxic diet—not a beefsteak diet. Beefsteak does not make blood, but it destroys blood. It destroys blood instead of making blood.

Q. Can rupture be cured without an operation?

A. In some cases it can; generally not.

Q. Can throat or nasal catarrh be relieved or cured?

A. Yes. Call upon Doctor Byington. I am sure he will succeed in curing or relieving you, and I am glad to tell you that this condition, which was formerly one of the most incurable, has come to be curable because it has been found that in this trouble there is always some diseased condition in the upper part of the nose that can be remedied. There are small bones which become enlarged and are obstructing the passages, and these can be operated upon safely and easily with the newly invented instruments that have been devised; operations can be performed that were not possible twenty-five years ago. Doctor Byington is particularly skilled in this kind of work, and will probably be able to relieve you if you will call to see him in his department.

Q. Would it do any good in case of stomach trouble, for the patient to go bareheaded all the time?

A. It would do him more good to go barefooted; but it would not do any harm to go bareheaded, and it might prevent some people from getting baldheaded, too.

Q. What is the best thing for a sore throat?

A. Gargle with very hot water and some antiseptic solution, put a fomentation on the outside, and wear a heating compress at night. It is most important that the bowels should be thoroughly evacuated and regulated and that the diet be free from toxin-forming foods.

Original from

UNIVERSITY OF MICHIGAN

Q. What is coca cola as dispensed at the drug stores?

A. Coca cola drinks in general consist of decoctions of caffeine. A glass of it contains about a grain and a half of caffeine,—about half as much as ordinary coffee.

Q. What is the effect of tea and coffee on the nervous system?

A. They are highly irritating and depressing. They are also particularly injurious to the arteries, resulting in arteriosclerosis and apoplexy.

Q. Please give a few dietetic hints in case of hypopepsia.

A. The important thing is to eat what you find upon the Sanitarium table. Do not eat

A. The first important thing is to chew well; to eat very little protein food, and to be careful not to take too much liquid at a meal; to eat laxative foods that will keep the bowels acting freely two or three times a day.

Q. Why is coffee injurious?

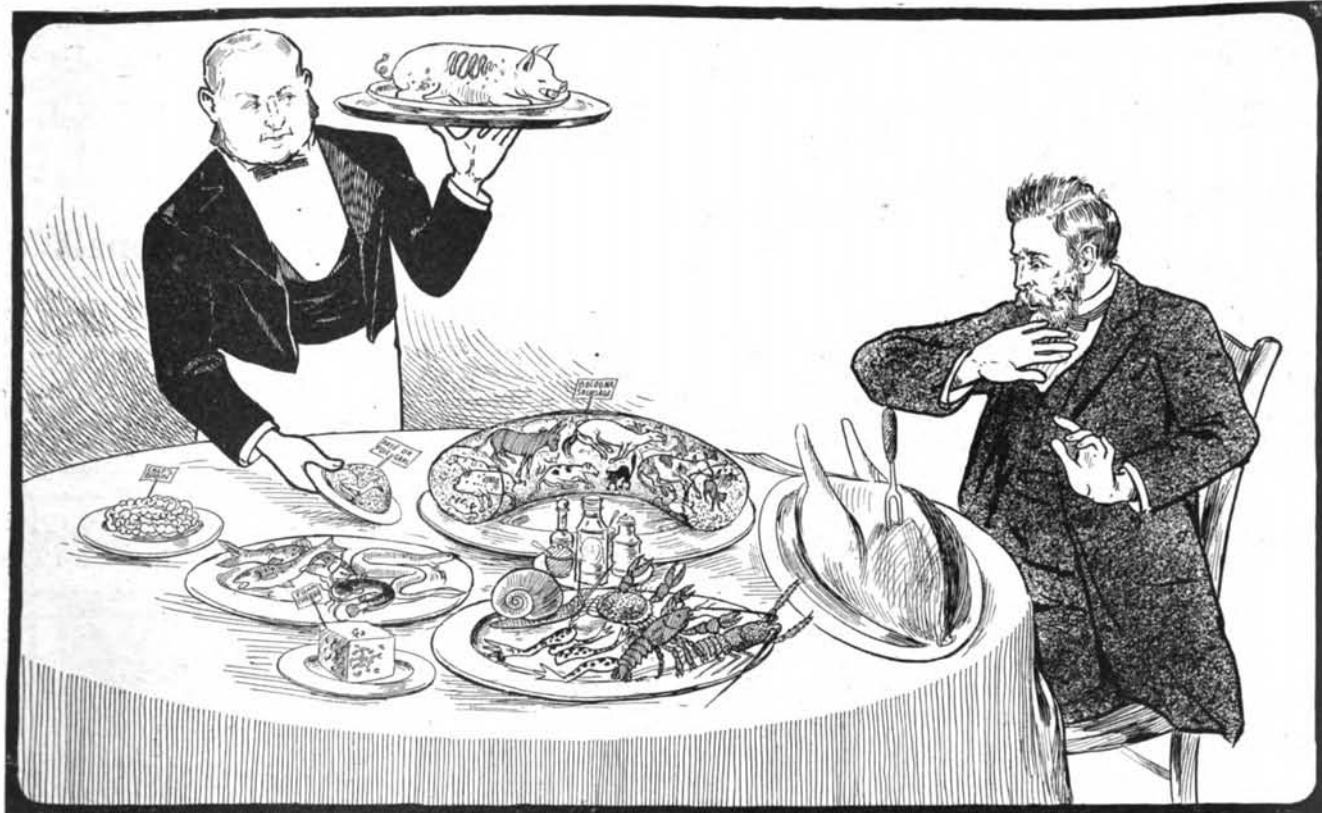
A. It hardens the arteries, irritates and poisons the nerves, and interferes with digestion. It disturbs the liver and the kidneys, is of no value whatever, and is a mischief-maker all the time.

Q. What is the difference between using vinegar and lemon juice on vegetables?

A. There is just the difference between good and evil, between black and white, be-

Q. What is the best method to produce healthy blood circulation?

A. There is nothing better than outdoor exercise. You can take exercise indoors with the windows open. A good way is to take an air bath before you go to bed at night, and when you get up in the morning. Divested of all clothing in your chamber, with the fresh air blowing all around, go through a lot of exercises. A capital exercise is to teeter up and down upon your toes, just rising on the toes, raising the heels. William Cullen Bryant tells us about the exercise he took. He did this act every morning five hundred times. Then he would take a couple of chairs, put his hands on top of the chair backs, and let himself down between the chairs, and up again, bending his arms, and



AN AWFUL REVELATION

too much fat, and take great pains to chew. That is the essential feature. In many cases a yogurt diet for a while is beneficial.

Q. I have been told that recent investigations prove that food is better digested when some water is taken with the meals.

A. Yes, it is all right to take some water with the meals. Some water is needed for the gastric juice, but one should not use water to wash the food down; he should not deluge the stomach with water; should not drink several glassfuls of iced tea or anything of that sort; the water should be sipped slowly, and a few sips at a time, just enough to stimulate the nerves of taste, and to refresh the mouth.

Q. What are some good rules to follow in cases of intestinal auto-intoxication?

tween food and poison. Vinegar is not a food at all; it is simply a poison,—diluted acetic acid, sometimes hydrochloric or sulphuric acid and various other poisonous acids. It is a product of decay and fermentation and is not a wholesome thing. The acid of lemon juice is a wholesome acid. Lemon juice is a food just as much as potatoes or bread or any other food substance. Acetic acid, of which vinegar contains five per cent or even more, is a poison far more potent for mischief than alcohol. Professor Voix, of Paris, showed that vinegar, or rather acetic acid, has twice the power of alcohol, and four times the power of gin, to make gin liver. The best way to obtain a really good, monumental, splendid gin liver is to use vinegar instead of champagne or beer.

he would make forty dips in that way. Then he had to take a walk down to his office, and up seven or eight flights of stairs, in the *Tribune* building; and so he preserved his good health and his usefulness to a very advanced age.

Q. I am suffering from hyperhydrochloria. Are fruit jellies and gelee, etc., good for me?

A. Fruit gelee would not be very bad. Cold foods are sometimes beneficial in a case of hyperhydrochloria, for they lessen the activity of the stomach.

Q. Why are sweets laxative to some people?

A. Because they stimulate the intestine.

One of the most interesting features of our present scientific world is found in the revelations of the government Weather Bureau as published by the Associated Press. It is of the greatest interest to watch the varying conditions and the approach of changes, and the wide variety of weather afforded to different portions of the country simultaneously. This week there has been a raging snowstorm in the West, with intense cold in some sections. A violent electrical storm was at the same time marching up the Atlantic coast, while in the lower Lake regions there was unusually pleasant and summer-like weather. Ample warning is given of approaching storms and emergencies so that the public are forewarned and consequently forearmed. It is true that the expected does not always happen in every place, for general conditions are not always quite universal, and there may be exceptions to a general rule in a limited territory; but on the whole we are very greatly in debt to the science of meteorology, and it has opened up an exceedingly interesting field of knowledge.

THE RAILROAD OF THE WEST

THOUGH the Grand Trunk Pacific only started its through passenger service between Winnipeg and Edmonton on July 3d last, the traveling public have recognized the service as the best in Western Canada, and the trains arrive at both terminals on time. The distance between these two points is 792 miles, making it the shortest line, and the distance is covered in thirty hours and fifteen minutes, which is five hours and forty-five minutes quicker than by any other route. The roadbed is in splendid condition, and with the heavy 80-lb. steel and the favorable gradients the trains run smoothly, making it a pleasure to travel. When it is found desirable to do so there will be no difficulty in materially reducing the present time of these trains.

Another feature is the excellent dining-car service which is operated on these trains and which has already become known as the best in Western Canada.

"What animal," asks the oracle, "goeth on four legs in the morning, on two at noon, and uses three in the evening?" It is man in infancy, manhood, and age.—*Ancient Egyptian Riddle.*

ARRIVALS

THE list of arrivals at the Battle Creek Sanitarium for the week ending October 16 is as follows: John G. Pephart, O.; Mrs. Chas. O. Worden, N. Y.; Miss L. R. Munger and Mrs. W. L. Munger, Detroit; G. W. Sueff, Pittsburg; Mrs. F. W. A. Gooding, Minn.; Wm. G. Fairleigh and Talbott Fairleigh, Mo.; N. J. W. Marrow, Ore.; Samuel Krauss, Mrs. L. M. Wing, and Mrs. S. Krauss, Mich.; L. Mabel Cranfill, Tex.; Miss Loowina Amberg, City; Mrs. A. P. Burlington, O.; C. F. Fowler, Mr. and Mrs. J. G. Kaumrar, Ia.; Mrs. John W. Dowd, O.; Miss

Jennie A. Kurtz, O.; H. S. Payson, Ill.; Mrs. E. Z. Hauks, Ind.; Mrs. Geo. Vence, Col.; Samuel Dickinson and Margaret A. Wicket, Ind.; Dr. J. C. Rickey, Wash.; J. M. Pearce, Des Moines; C. F. Meese, O.; J. M. Jack and wife, and Miss V. Jack, Pa.; Albert Wise, O.; M. C. Treat, Pa.; W. Barrows, Fla.; B. M. Van Dervoort, Ill.; Mrs. E. J. Goodman and child, Chicago; J. B. Clark, Brooklyn; John Masten, Mich.; J. O. Cheek and wife, Tenn.; J. J. McElree, Pa.; Mrs. M. I. Schloss and Miss Adler, Detroit; Mrs. J. M. Quinn and Madelon Quinn, New York City; Pliny Norcross, Wis.; V. S. Barker, S. D.; H. D. Graham, New York City; W. G. Fullenwilder, Ind.; Mrs. L. W. Hubbell, Mo.; Mrs. J. A. Swayzee and Mary E. Henline, Ind.; J. T. Moltrup and J. F. Moltrup, Pa.; John A. Brennan, S. Dak.; Mrs. T. A. McGee, Mich.; Mr. and Mrs. W. H. Dick, Miss.; Mrs. C. D. Dick, Wis.; Mrs. E. J. Phelps, Minneapolis; Mr. and Mrs. F. E. Hayes, Detroit; H. E. Smith, Toledo; Mrs. Mary L. Perkins and Miss Helen L. Perkins, O.; Mrs. H. E. Smith and Mrs. Gertrude Holland, Toledo; Mrs. W. H. Gay, Los Angeles; Mrs. N. D. Higgins and Dr. E. A. Taylor, Mich.; Mabel G. Skipp, O.; G. F. Wheeler, Mo.; P. B. Fellwolk, Ind.; Lydia M. White and L. L. Powers, N. Y.; Mrs. J. B. Wathen and the Misses Wathen, Ky.; Mr. and Mrs. W. E. Doughty, New York City; Edw. Everett, New York City; Wm. Burtless, Mich.; Peter Franklin and wife, Pittsburg; Edw. Robley, Ethel Robley and Ella Dann, Ill.; Walter E. Wiatt, Ill.; A. O. Robinson, Mo.; Mrs. Robt. Hortsfield, Ga.; Mrs. Geo. Lerch, Minn.; Mrs. B. J. Bogue, Ind.; M. T. Gold and wife, Miss Ruby Chambers and W. A. Chambers, Tenn.; Mrs. D. E. Menil, D. W. Stockwell, Ill.; J. W. Hauks, Chicago; J. M. Moses and J. S. Ulman, M. D., Miss.; Geo. M. Harrison, Mich.; Ora Ladd and Mrs. J. A. Ladd, O.; Mrs. E. Blauvelt and David D. Bellis, N. J.;

Mrs. I. Kramer and Pearlle, Chicago; G. E. Kuntz, Milwaukee; Mrs. E. D. Kimball, Kans.; W. A. Switzer, New York City; T. H. Forbes, Ind.; F. J. Banta, O.; Geo. N. Taylor, Chicago; H. D. Jows, Tenn.; R. W. Osborn, Mich.; Miss Cate, Mich.; Carl H. Murray, O.; G. F. Wheeler, Mo.; M. E. Leonard, Ia.; Mrs. C. J. Jenkins, Mich.; Willett S. Colgrove, Kalamazoo; J. O. Byrn, Kansas City; Mrs. W. B. Hamilton, Pa.; Wm. F. Jeffrey, Tex.; Mrs. J. H. Strong, Chicago; Lincoln E. Hart and E. Orris Hart, Ill.; Rev. W. Dring and wife, China; Miss Ruby Parker, O.; Bertha L. Woodward, Kalamazoo; Mrs. A. R. Lester, Chicago; C. M. Smithdeal and wife, Tex.; Mr. and Mrs. C. L. Davis and Mrs. Irwin Scott, Ind.; Henry Furst, Jr., Chicago; Mary A. Ellsworth and son, Ill.; Gena S. Anderson, W. H. Hines, H. W. Mount, Chicago; R. P. Johnston, N. C.; Chas. E. Bates, Chicago; Mr. and Mrs. H. Morehouse, N. Y.; S. S. Robertson, Pittsburg; E. B. Gaksone, Mich.; Louis E. Hohman, Okla.; Q. Blumberg, Ind.; Mrs. Chas. Anderson, Ill.; Mr. and Mrs. T. M. Gillfillen and Mrs. Rose Hermanson, Ill.; Mrs. D. E. Hasey, Minneapolis.

News and Personals

Mrs. S. M. Yutzky, a well-known musician of Ann Arbor, and a former patient, has been visiting Dr. Carrie Staines and Miss Zahn.

The Sanitarium library has added a fine set of Dickens and also of the "Harvard Classics," the books selected by President Eliot for his famous five-foot shelf.

Mr. George M. Taylor, of Chicago, Field Secretary of the Presbyterian Board, and a

Homeseekers' Round Trip Rates

— VIA —

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To certain West, South-West, North-West, South and South-Eastern States on First and Third Tuesday of each month. Return limit 25 days. Full information gladly given.

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\$3.60

BAY CITY, MICH., and RETURN

— VIA —

The Grand Trunk Railway System

Tickets on sale Oct. 26th, 27th and 28th. Return limit, Oct. 29th. Please ask for any particulars.

L. J. BUSH, Pass'r Agt.

very active worker in the Laymen's Missionary Movement, is at the Sanitarium recuperating.

Mrs. J. D. Wathen, with her daughters, the Misses Leonora and Margaret, former patients of the Sanitarium, have returned from Louisville, Ky.; also Mrs. Geo. Lerch, from Hibbing, Minn., who was also a former patient.

Among recent additions to our missionary family are: Miss Glenny, a missionary from Smyrna, Turkey; Rev. and Mrs. Dring, of the Baptist Board from Assam; Miss G. Anderson, of the Scandinavian mission in China; and Rev. W. Wiatt, of Burma.

The Michigan State Federation of Women's Clubs held its annual meeting in Battle Creek this week and was entertained at a banquet by the Sanitarium on the evening of the 19th. There were about six hundred guests, and the affair passed off very pleasantly.

Mr. W. G. Fullenwider, of Crawfordsville, Ind., an enthusiastic student of forestry, has come to the Sanitarium for rest and treatment. We note also Attorney J. B. Clark, of Brookfield, N. Y.; and Attorney Pliny Norcross, of Janesville, Wis., who is also quite prominent in the manufacturing business.

Bishop J. W. Bashford, superintendent of Methodist missions in China, with headquarters in Pekin, was a visitor at the Sanitarium

on Tuesday of this week. He was especially attracted this way by the fact that his wife is a patient in the institution. The Bishop addressed the Sanitarium family in the afternoon upon recent events in China and their significance.

We have received from A. C. McClurg & Co., Chicago publishers, a copy of a little volume by Dr. W. S. Sadler, entitled "The Cause and Cure of Colds." The subject is treated in a lucid and practical manner. Causes, cures, and counsels are stated in a way that is entirely intelligible to the ordi-

nary reader. And who does not know what it is to "have a cold"? The book is one of 145 pages, and will be of great value to those who are willing to follow its counsels. Price, \$1.00.

As to our illustrations this week, the first page shows a picture of the Battle Creek Sanitarium's main building that succeeded the original farm house in which it was at first housed. Large additions were made to this building, first on the south end (at the right), and then on the north end, and the sixth story was added. The other picture is

Low One-Way Rates TO PACIFIC COAST POINTS

VIA

The Grand Trunk Railway System

Tickets on sale to California, Nevada, Arizona, Mexico, Aug. 25 to Sept. 9th, also Oct. 1st to Oct. 15th. To Colorado, Utah, Wyoming, Aug. 25th to Sept. 9th; also Sept. 15th to Oct. 15th. To Montana, Idaho, Washington, Oregon and Canadian Northwest, Sept. 15th to Oct. 15th. Stop-overs allowed at certain points. Full information gladly given.

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COST	Tuition	\$50.00 per year
	Room (with room-mate)	1.00 per week
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Address all inquiries to

The Sanitarium School of Health and Household Economics,

LENNA F. COOPER, Director,
Battle Creek, Michigan.

The Battle Creek Sanitarium School of Health and Household Economics furnishes two courses in Domestic Science, based upon the principles of Health and Hygiene as established by the most recent findings of scientific investigation.

THE ONE-YEAR COURSE

Is especially designed for matrons and housekeepers, and those who desire education and training in Cookery, Dietetics, Chemistry, Home Nursing, Household Economics, and kindred subjects.

THE TWO-YEAR COURSE

This course gives necessary instruction and training to prepare those who take it to fill positions as dietitians, lecturers, and demonstrators.

Details of courses are given *in extenso* in the Annual Announcement, which will be sent on application.

taken from Sanitarium avenue and shows the south end of the College or Administration building, and at the right we see West Hall or the Nurses' Dormitory.

On Tuesday evening the Elks' Band, assisted by Mrs. Joy C. Hubbard, contralto, gave a delightful concert in the gymnasium which attracted a good audience. This is the favorite band of the city, and for some months has been under the direction of Mr. W. T. Drever, of the Sanitarium. On this occasion the band not only sustained its reputation, but advanced it several points and reflected much credit upon its leader. The band is anticipating attending the annual conclave in Atlantic City next summer, where it will come into competition with many celebrated organizations.

Mr. H. A. Hutchins, of Panama, formerly a Sanitarium nurse, and for two years employed in the United States hospital at the Isthmus, is visiting his many friends here for a few days. The hospital with which he is connected has a capacity of 1,200 patients and receives all classes and nationalities. These are separated into wards. Mr. Hutchins is employed in the department for the insane, which has over three hundred inmates, and the number is constantly increasing. Much has been done by the authorities for the improvement of conditions in "the Zone," but intemperance and dissipation are doing their work, and many of the patients are their victims.

Among recent arrivals at the Sanitarium we notice the following: Mr. R. P. Johnston, a prominent real estate man of Asheville, N. C.; Mr. C. M. Smithdeal, a well-known attorney of Hillsboro, Texas; Mr. D. D. Bellis, a lumber and coal merchant of Aradell, N. J.; Mr. G. E. Kuntz, a hotel proprietor of Milwaukee, Wis.; Mr. E. W. MeMannon, a prominent manufacturer of Thomson, Ga.; and Mr. Ian Moses, of Natchez, Miss., who is accompanied by Dr. J. S. Ullman, of the same city. From Clarks-ville, Tenn., comes Mr. Louis T. Gold, a prominent manufacturer of that city; and from Evansville, Ind., Mr. P. B. Fellwock, a manufacturer of automobile supplies. Mr. and Mrs. W. H. Dick, prominent in the lumber business of Philip, Miss., were accompanied by their sister, Mrs. C. Dick, of Manawa, Wis.

An audience estimated at one thousand attended a stereopticon lecture in the Sanitarium gymnasium on the evening of the 17th inst. The lecture was given jointly by Alfred S. Johnson, Ph. D., formerly editor of the *Technical World*, and Chas. D. Warner, editor of the *Cement World*. These gentlemen are from Chicago, and belong to the Radford Architectural Company of that city. The theme was "The Building of Beautiful Homes," and the meeting was under the auspices of the Community Club. The manufacture and use of cement in the construction of houses was illustrated, and the ornamentation of buildings and grounds was also shown and encouraged. The audience was

largely from the city, and was thoroughly representative of the community. It is thought that a new impetus will be given to the building and beautifying of homes, for which our city is already justly celebrated.

The Sanitarium W. C. T. U. held a very interesting meeting on Sunday last in the parlor. The meeting was under the charge of Mrs. Emmons, the vice-president, who introduced the various items on the program. The speakers were very earnest and convincing on the need of work after the Master's example, and of the privilege and duty of the church to participate in it. The superintendent of the City Mission, Mr. A. L. Spence, was present and spoke with intense feeling of the work he had been doing for the past eight months, and gave several instances of men who had been reclaimed. At the suggestion of one of the audience, a collection was taken for the benefit of the work

of which Mr. Spence has charge. Two ladies, Mrs. Dr. J. F. Byington and Miss Dessie Jones, contributed musical numbers, and Master Donald Byington recited a poem.

At the Christian Endeavor meeting on Friday night, Dr. Carolyn Geisel gave a very earnest talk to a large and attentive audience. The subject was, "Our Amusements," and the doctor clearly showed how many seemingly harmless amusements, when carried to excess, often lead to sin and ruin. She gave some sad stories from her own personal experience of rescue mission work, and strongly urged the cultivation of innocent amusements and those things which make a joyful Christian life. She emphasized the necessity of using the Bible as our guide in this matter. Miss Jackson sang by request, "The Holy City," with an organ accompaniment by Mr. Drever. The subject for next Friday is "The Chances We Miss."

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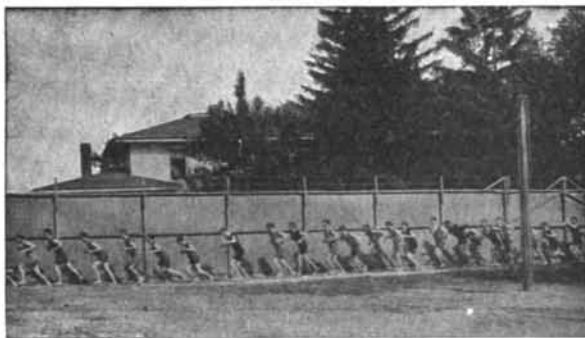
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For full particulars address:

WM. W. HASTINGS, DEAN, SANITARIUM, Battle Creek, Mich.

THE BATTLE CREEK IDEA



Vol. III No. 47

BATTLE CREEK, MICH., OCTOBER 28, 1910

Price 2 Cents

Conserve the Children

By Teaching Them Good Manners, Good Health, and Good Morals—Lecture by Hon. Robt. L. Owen, U. S. Senator, at the Sanitarium

INTELLIGENCE is, of course, a powerful force in human affairs. But a horse thief may have intelligence; a successful forger has intelligence. One who forges a United States bank note must be an astute artist, in order to make an imitation of a bank note so clear and so well that it would escape detection. But intelligence is not enough. The schools of our country teach books. They begin with the alphabet, and go through mathematics, chemistry, botany, and various sciences. But while we are developing an intellectual race through the teaching of our schools, I do not think we are teaching sufficiently those great fundamentals of human character—the lessons of personal integrity, the lessons of good manners, and the immediate offspring of good manners,—good morals, and good health. I believe that we ought to teach our children

Politeness First of All,

because politeness carries with it a proper and decent respect for others. And when you teach a child respect for others, you teach the child the first great lesson of life—respect for himself. And if you plant self-respect firmly in the mind and in the heart of a child, you have armed that child against most of the temptations that will later on assail it in life.

It may seem difficult to
(Continued on page four)

A VITAL QUESTION AND ITS ANSWER

The Sanitarium is Not Mercenary, Not Commercial—It is Not Getting Rich Out of Its Patrons

THE impression that prevails in some minds that the Battle Creek Sanitarium is merely a commercial venture promoted for the sake of gathering money from the sick, found gentle expression in a question that came up during
(Continued on page two)

The Sugar Question

Cane Sugar is a Defective Food and an Irritant—A Substitute is Found. From a Question-Box Lecture by J. H. Kellogg, M. D.

No one should get the idea that cane sugar is poison. Cane sugar is food, but it is not the best form of food. There are certain scientific objections that all ought to know about. I met one of the leading dentists of

Chicago—I think he is the president of the Odontological Society of that city, —and he remarked to me that he recognized the fact that the teeth of the people of the United States and of all civilized countries are rapidly deteriorating; and notwithstanding that fact, only eight per cent of the people who have decayed teeth pay any attention to the matter of their teeth or do anything to have them fixed. People wait until the teeth are so bad that they can not stand it, and then the teeth are useless and they have them pulled out and go without them.

This dentist, like all intelligent men, is very much interested in the question of what is the cause of this tooth decay, which is universal among civilized people. It does not prevail among savages; savages have fine teeth. If I should inquire how many people in this room have thirty-two sound teeth, probably I would not find one person. It is the rarest thing in the world to find in a thousand people one adult person who has the normal number and a full set of sound teeth.

There Are Some Causes

for this universal decay of



HON. ROBERT L. OWEN, U. S. SENATOR FROM OKLAHOMA

the teeth; and probably one of the chief causes is the extensive use of cane sugar.

You know there are three great food elements—fats, carbohydrates and proteins. The protein goes to build up the muscles, the brain cells, the nerves, and the various tissues, or the machinery of the body. The carbohydrates and the fat both are used for fuel in the body. So we have two kinds of bodily supplies—repair substance, and fuel, so that food is made up of two sorts of material, material that is used for repair and the material that is used for heat-production. The same is true of the locomotive. As the locomotive takes its course through the country, it stops at certain stations, and takes on coal and water. Once in a while the locomotive goes into a roundhouse and the engineers look it over, and if they find a nut off, or a bolt gone, they put in new ones; if they find a piece of brass missing, they replace the brass; so the machine is brought back to its normal condition. The locomotive has to have two things for its maintenance—fuel, and metal for repairs.

Exactly the same thing is true in the body. The body has to have repairs for the machine.

That is Effected by Protein.

Then it has to have fuel to burn; and that is found in fat and carbohydrates. The carbohydrates are starch and sugar; and when we take our carbohydrates in the form of cereals, the other elements that are necessary for the bones, the teeth, and all the other bony substances are associated with the starch. When the grain is grown out of the ground, there is collected into it everything that is necessary for the animal to eat. In a little kernel of corn we have a whole bill of fare; there is the protein, the starch, the fat, and the salts,—everything is there that is needed for replenishing the body.

Lime is associated with the starch. But suppose, instead of taking our carbohydrate in the form of starch, we take it in the form of cane sugar. Sugar is pure crystalline carbohydrate with no lime associated with it at all. The lime of the cane goes off in the molasses. It is in the sediment that is removed in the process of manufacture. So when we take our carbohydrate in the form of sugar, we do not get the lime that should go with it. The same thing is true when we take our protein in the form of flesh; because when a pig eats corn the lime goes into the bones, and people only eat the soft parts of the pig; they do not eat the bone, and so do not get the lime. If they are to get the lime of the corn which the pig ate, it is necessary to eat the whole animal. It is a case of "the whole hog or none" if we are going to get the corn back.

So there are the

Two Great Sources of Death and Decay;

one is taking our protein in the form of meat instead of in the form of vegetable protein, because the vegetable protein of the corn, wheat, rye, and barley has the lime associated with it, just in the right proportion; and eating our carbohydrate in the form of sugar. It is thus that people are losing almost altogether the lime that they need for the hard tissues of the body, and that is the great source of tooth decay; there can be no doubt about it. Therefore, one of the

primary reasons why we should not eat cane sugar is because it is a form of carbohydrate that does not furnish lime along with it. And we need the lime; so it is better to take our carbohydrates in the form of rice and wheat and oatmeal, and flaked foods of various sorts.

"But the Sugar is so Good,"

somebody says, "I am very fond of sweet things." In order to satisfy that demand the Sanitarium prepares sugar that has the lime in it. Malt sugar is prepared from cereals. It is simply the digested grain. The grain goes through the process of digestion as it goes through it in our own bodies. In the first place, it is chewed or ground up in a mill; that is mastication. Then it has diastase, which is just the same as the diastase of the saliva, mixed with it, and it is kept a little above the temperature of the body to aid digestion; so it undergoes the digestive process and is converted into sugar, and the lime that is in the grain goes right along with the sugar, it is not separated. All the soluble part is concentrated in a vacuum pan into the form you find it on the tables.

We have been supplying this sugar for the last sixteen years in the form of malt honey, as it is called, or Meltose. We experimented a good many years before we were able to make it, but we finally succeeded in preparing it; and for ten years we have been experimenting to find some way in which we could make it in granular form, and have only recently succeeded in accomplishing that; but we are now able to supply it. It differs from cane sugar in that it is not quite so sweet, but it has the lime associated with it, so it is a wholesome carbohydrate.

It Has Another Advantage;

instead of hindering digestion as cane sugar does, it aids digestion; it is a powerful peptogen. When digestion is weak, it aids the stomach in making gastric juice. It is a natural sugar for human kind, while cane sugar is not a natural sugar. Cane sugar is natural for herbivorous animals; it is a grass sugar. It is found in all grasses, in sorghum, in the stalks of corn, in the sap of the maple tree, and of the hickory tree, the birch and various other trees; in fact, the sap of nearly, or quite, all trees contains cane sugar. The date tree, for example, has a large amount of cane sugar; so they evaporate the sap of certain date trees and make sugar. We have a palm sugar made from the sap of certain palm trees. Sometimes palm juice is fermented and made into toddy, and the tree from which it is made is known as the toddy palm. The cane sugar found in the sap of certain date palm trees is deposited in the fruit.

Cane Sugar is Converted in Fruits

In most fruits, as in the cherry, for example, there is a ferment which digests the cane sugar and converts it into fruit sugar; but in certain species of palm trees this ferment is lacking, and these defective palm trees are the ones that make the sweet dates of cane sugar. It is an accident that gives us the cane sugar date, an accidental defect. But in the date, even though the cane sugar is there, the lime is associated with it, so it is wholesome for us to eat. The same thing is

true of the sugar of grapes and raisins; there the cane sugar is associated with the lime; it is a vegetable product, and it is normal and wholesome. But in the manufactured cane sugar we have a product separated from its natural concomitants, so it is a defective food.

There is another objection to the use of cane sugar—it is an irritant. The human stomach is not adapted to it; it is not natural for our stomachs. The cow has a stomach which is adapted to cane sugar, and is able to digest it. In the human digestive apparatus, there is no great provision for the digestion of cane sugar. It is three or four hours after the cane sugar has been taken that a ferment is provided which is capable of digesting it and converting it into grape sugar so that it may be assimilated. I advise you to discard the use of cane sugar and use malt sugar. You may use it just as freely as you wish; it is simply predigested food. It is all ready for immediate assimilation; it aids digestion; it is slightly laxative in its tendency, so is useful in that respect, and should be eaten freely by invalids and by infants as well as by adults, as it can do nobody any possible harm.

A VITAL QUESTION

(Continued from page one)

a recent Question-Box lecture by Dr. J. H. Kellogg. The speaker was asked to lay aside all prejudice and all commercial interests and from that point of view answer the query whether an ordinary meal of bacon, eggs, hot rolls, and tea would not cause less trouble in the stomach than the meals provided on the Sanitarium tables. We suspect the question was not altogether sincere, probably being intended to be a benefit to some doubting new-comer whom the questioner wished to help; but it carries an implication that deserves attention from time to time. That an undertaking of the magnitude of this institution could be fostered by private effort and enterprise as a purely philanthropic work seems to pass the comprehension of many individuals, some of whom are not capable of grasping a benevolent idea bigger than a "quarter." Therefore we take the liberty to repeat here the answer.

Doctor Kellogg Said:

I do not know what this questioner means by "commercial interests." So far as the question applies to me personally I have to say that I have no such interests. All that I have and am belongs to the world, and to its suffering people. When a boy I made up my mind to find a job which no other man was doing or wanted to do. I never cared to do anything that some one else could and would do, or to take the place that somebody else wanted. I have aspired to do something that needed to be done, and that no one would do if I did not do it.

I will make a few statements in regard to the financial side of our work, since the question implies that the basis of this whole thing is mercenary, that we are inducing people to adopt our foods and follow our suggestions for the money that we get out of them.

This Sanitarium could not exist on its own ordinary earnings. The money obtained from

its patrons for board and treatments and medical work of all kinds would not pay our bills. If any one doubts this statement the books are open for inspection. But it makes no appeals for donations or assistance, it seeks to support its beneficent work by other legitimate means that are in harmony and correlated with its principles and with the work it is trying to do.

So Far as the Foods Are Concerned, whatever profits arise from their manufacture go into the enterprise, and help to support it. The gross receipts of the institution are approximately \$600,000 a year. But the expense bills so nearly equal these large receipts that it requires the closest supervision to enable us to pay our interest and make a slight reduction upon our large indebtedness each year.

kept in operation by the assistance it has received from the profits of the food business.

This may seem strange to some of you who are paying \$50 or \$60 per week for what you are getting here. And I am bound to say from our past experience that the people who pay most for what they are getting are the ones who have the least suspicion and make the fewest complaints, simply because they have the best sense of the cost of these things. They are accustomed to paying for things that cost, and this service is costly.

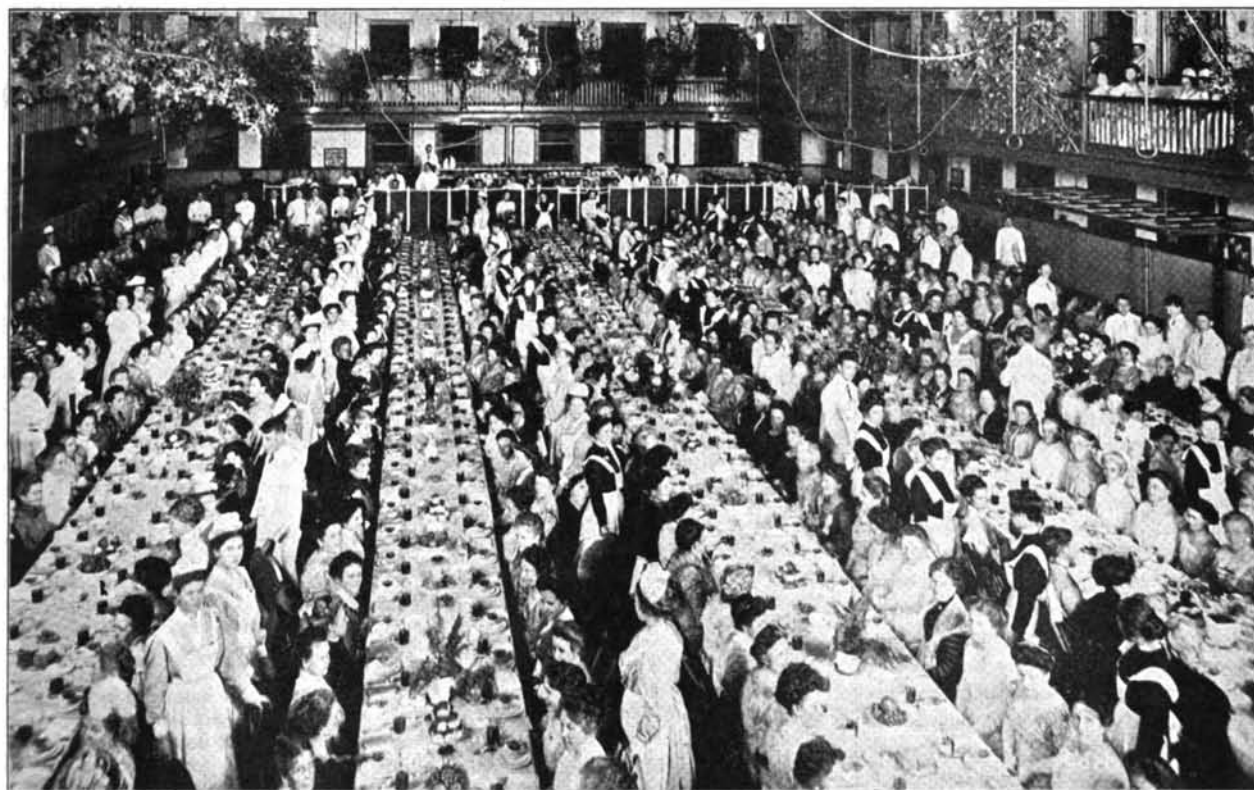
The Average of Our Patients

pay less than \$25 per week. We have some who pay much less than that because they need the benefits, and have given their lives to the service of mankind for a very meager support and are not able to pay full prices. At the dispensary in the College building

perience of the way it has served you. You can speak from a practical point of view. You have come here with stomachs worn out, with kidneys and livers disordered, and with many forms of trouble more or less serious, all directly attributable to that sort of food. I have had no experience in those things since I was a lad, but

I Have Had a Chance to Observe

the effects upon a good many other people. I have also had a chance to observe the effects of our Sanitarium diet upon a great many people. And I assure you that in recommending our foods I am entirely conscientious and consistent with my honest convictions. And I venture the assertion that but very few if any who have had any opportunity to make this comparison will differ with me in my conclusions.



THE BANQUET TENDERED BY THE SANITARIUM TO THE MICHIGAN STATE FEDERATION OF WOMEN'S CLUBS (SEE PAGE 6)

The profits have been so small that I have never felt free to receive any adequate salary for my services. I have worked for the Sanitarium over thirty-five years, and for some time my salary was placed at the nominal sum of fifteen dollars per week, and I boarded myself. I never depended upon this sum and paid no attention to it. Later, a larger sum of, I think, \$100 per month was voted me. I never saw any of it. It was placed in a fund to my credit, and out of it I helped needy cases and paid expenses when traveling on business connected with the institution, but never used any of it for my own private purposes. I have never received a medical or surgical fee in my life.

I only make these statements under the stress of necessity, that you may see that this is not a selfish or commercial enterprise. But it is true that this institution has been

any man, or woman, or child, no matter how poor, may get treatments and medical attendance absolutely free. We have two doctors who spend most of their time, and a number of our best nurses who give their time to this work, and they are at the service of any call of need coming from any part of the world. Any one can come and obtain the help we can give.

I must repeat what we have so often said, that out of the proceeds of this institution there is not a soul living who receives more than his salary, which in every instance is but a moderate one.

In reply to that part of the question that refers to the comparative mischief of the diet we serve here and a diet that embraces ham and eggs, tea and coffee, hot biscuits, and so on, let me say that many of you have tried this latter diet, and can speak from ex-

Laying aside your own prejudices and appetites, then, and considering this question in a sane and candid way, taking the evidence of scientific men who have investigated this system, and the testimonies of thousands who have tried it out, let me return to the question, and ask you to ponder it well and to decide according to the evidence at your hand.

The large buildings you see here are not for show, nor have we provided the extensive and costly outfit for any commercial purpose; every facility provided here is solely for the benefit of the sick and suffering world. We try to meet the demands of the wealthy classes who expect and are willing to pay for what they get at reasonable rates. And the same things practically are provided for those in more limited circumstances. It is the purpose of this institution

(Continued on page four)

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SOUR GRAPES AND THE CHILDREN'S TEETH

THERE was an olden proverb, quite current in Israel, that "The fathers have eaten sour grapes, and the children's teeth are set on edge." One of the kings in those times whose bad deeds had excited the divine disapproval, obtained from the prophet the assurance that the consequences of his tricks should not come upon him, nor fall upon his times, but should be visited upon his successors. Consequently, the reprobate king lived in great equanimity of soul because he was not to reap the harvest he had sown, and it did not matter to him if his children had to eat ashes.

No one thinks any more of the old sinner for his indifference as to the consequences of his misdeeds or where those consequences fell, so long as they did not come down upon his own pate. But we should not spend too much time execrating the indifference of past ages. Plenty of people are acting the same part to-day. Physical consequences "come home to roost" with unvarying certainty. It is quite possible they may not come in the day of the transgressor, but if not, his children will have to harbor the unwelcome brood for which his father laid the eggs, as it were. It may come in the form of a vicious appetite, in uncontrollable passion, in a mania for crime; or it may come in the form of an infantile paralysis, in a nervous wreck, in mental imbecility, or some other hideous shape, but it comes sure enough. Nothing short of the scrutiny of heaven will ever penetrate to the origin of a host of the evils we see about us. Who sowed the seeds which produce the awful spectacles which haunt us here and there, we may never know.

For a selfish man it may be sport to eat sour grapes so long as somebody else's jaws are cramped, but it is a reckless wretch that will knowingly sow such a harvest for his own children to reap. Nevertheless, myriads of children are to-day reaping just such sowing. They are drinking the dregs of the cup of which the father and mother drank the foamy wine.

THE RIGHT MUST PREVAIL

It has passed into the state of an old and trite saying that, "No question is settled until it is settled right." An agitation against an evil thing once set in motion can not be quieted as long as the evil exists. Truth must finally triumph. It is true that the struggle is not always favorable to the right side, often the right is overborne and cast down to the ground, but it "shall rise again," and continue the fight, for as sure as God lives, right and truth will at last prevail.

Those who array themselves with the forces of evil may mock and sneer for a while, but that does not count; it only remains for those on the right side to be persistent and vigilant, and they will not only see the triumph of that for which they have stood, but they will also share in that triumph. Many of these struggles have gone on for ages and are not finished, because the evil still survives, and there can be no permanent compromise with wrong. Truth is immortal, right is eternal, it will never perish; so the outcome must be a complete victory for that which is right.

Consequently, those who stand for a right thing, either in principle or practice, need not be dismayed nor ashamed. Right is on the road to victory, and it is better to be right than to be president. Evil is strongly entrenched in the habits and passions of men and women; it dies hard. It appeals to the appetites and the natural feelings with great force, but it is not eternal, it must die at last. The time will finally come when evil will be uprooted and removed. The day of perfection is coming, slowly, it seems, and yet perhaps not so slowly as many think.

One of the fiercest of struggles is the fight against drunkenness. The liquor traffic is a gigantic form of evil, that like a strong man, stands impregnable in many communities while he ruins and debauches all around him. He robs and murders at will. He destroys families, ruins fortunes, and blights everything he grasps; and yet he lives and thrives in the most cultivated lands and the most civilized cities. But the fight is on; there will be finally but one possible issue. The giant must come down. It behooves every one who has the love of mankind and the fear of God before him to work and fight this greatest of all curses.

A VITAL QUESTION

(Continued from page three)

to provide for the comfort and cure of those who come here to enjoy its benefits, and to do this no pains or expense is spared, and we have our sole reward in the joy and gratitude that come to hearts that came here burdened and sad.

CONSERVE THE CHILDREN

(Continued from page one)

establish in our common schools this method of teaching good manners, good morals, and good health, but I think that children ought to be taught these things. Some will say, "Well, their mothers will teach that." Well, perhaps, and perhaps not. Perhaps Mamma does not really know how to eat for health. I have seen some excellent ladies, members of the church, and candidates for holiness,

Who Did Not Know How to Eat.

I have seen some women who did not know how to take care of themselves or their children, not to mention the men. The children ought to be taught these elementary lessons, and they ought to be taught them in such a way that the child will be full of good health and energy, full of good manners and morals, and ready to become a good citizen later on.

The question is, how to accomplish that. Shall we try to do it through the ordinary school routine? Perhaps that may be available. If we had some central institution which would consider the need of the child in the highest and broadest and best sense, so that this lesson could be thoroughly learned, and having been learned, could be put into concrete form, and then put in the hands of every school teacher in the land and of every mother in the land, we might make it a common property.

I have been interested in reading about the Chinese and the great pains they take to entertain their children with dolls and playthings of various kinds,—far more, I understand, than we in this country entertain our little children. It does not take much to entertain a child; and the children ought to be entertained, and through their entertainment and through their plays they ought to be taught the fundamental lessons of good character. Now, the people in Denmark have a great child's festival day,

"Child Help Day,"

they call it. I was interested in having one of the attendants here show me some postal cards from his home descriptive of this Child Help Day. It is a very important festival, and apart from the merry-making and the joyous pleasures of the day when the people all congregate in the streets and have those beautiful and various forms of entertainment going on, it has a far deeper and more valuable purpose than mere fun-making, although it is a day of jollity and good humor, and one of the most cherished of all days in Denmark, I understand.

The great purpose of it is that it concentrates the attention of all the people upon the importance of taking care of the child. I believe in conservation of forests, but I also believe in the conservation of the forester and of the forester's child. I believe in the conservation of the mines, but I believe in the conservation of the miner and of the miner's children. And while we are talking about conservation of material things, I think we ought not to forget the conservation of the children of the land. There are many of them who are in a pitiful condition. The streets are full of them.

The Women of Denver,

always interested in children, established a curfew bell to keep them off the streets late at night. That is a little advantage. They established a juvenile court to protect wayward children who had committed some petty crime, and to take care of them, and not treat them as criminals. Society is the criminal when it treats a child as a criminal. Judge Ben Lindsay is a father to many a fatherless boy. Another thing that the women of Colorado did was to make it a criminal offense for an adult to contribute to the delinquency of a child. Do you know that many children in this country are being taught the drug habit? That many of them are being misled, deliberately and intentionally? Do you know that many girls are being led to their ruin when they are mere children? It is a terrible story, if you knew the truth of what is going on in this country. I thank Heaven that the time is not far off when vice shall no longer be endured in the government of the American people. I believe that the time is near at hand when the people of this country are going to purge their own government and see to it that the government will put a friendly hand on the head of the child and protect him from vice and crime as well as from the weakness and exposure of great poverty.

In New York City over 10,000 children were found enumerated who went to the schools without food or insufficiently fed. The same thing is going on in other big cities. But it is going to end. It is not going to last very long.

We Ought to Have a Day Set Apart

in which we shall expressly thank God for the children of the land. They require much care, but they give more happiness than anything else in the world. There is nothing in the world so sweet as the bright eye of a child, the sweet smile of innocence. If there is a mirror which shows a heavenly spirit, it is the face of an innocent child smiling back into yours for some little kindness. We ought to have a day. And when the Oklahoma legislature meets, if we do not have one in Oklahoma it is not going to be my fault. I shall undertake to have Oklahoma lead in the way of child conservation. I would like to see the President of the United States take the lead in it in the form of a proclamation recommending to the people of the United States the adoption of the Danish plan of a child conservation day. Why not? Would it not be a good thing for all of our people to have their minds on one day in the year in common accord for the conservation of the child?

I Remember the Days of My Own Childhood.

I remember the afternoon parties my mother used to give. They were called popcorn parties. It was not much of a feast,—bags of popcorn, and the children popped the corn; some candies and nuts, perhaps,—but they were parties of politeness, parties in which children were taught to sing in concert, and to play games, and to be courteous and kind and polite to each other and to recognize the rights of each other. Those parties were good things. They exercised a good influ-

ence upon every child that participated, and even the child that was wayward, and not very cleanly at first, would be brought into contact with good companionship, good fellowship, good behavior, good thoughts, and good character. They are all mimics, and if you give them a good example they will mimic that good example, and they themselves will become good examples to other children, and good seeds will be sown. And those seeds have the peculiar character of being contagious. They spread themselves. Good health is contagious, good humor is contagious, and good manners are contagious.

I am reminded of one of George Francis Train's little experiences in New York. He had been playing with some children, entertaining them and being entertained, and the children left, and a little colored child came up to Train and said, "Do you love children?" He said, "Yes." The child said, "I am a child." If anything on earth could abolish race prejudice, it would be the appeal of a child. You ladies who represent, perhaps, twenty-five or thirty States, could in your own homes inaugurate these little parties of politeness once a week, or once every two weeks. Bring the children together, have these little parties. They do not cost anything. They more than repay the little trouble.

QUESTION BOX DEPARTMENT

EACH Monday evening Dr. Kellogg conducts a Question Box talk in the Sanitarium parlor, where all guests and patients are at liberty to submit questions relating to health and health topics.

Q. Is there any remedy or cure for pernicious anemia?

A. Yes; pernicious anemia is due to toxemia from poisons generated in the colon. These poisons are absorbed into and destroy the blood. One of the discoveries made within recent times is that some of the germs that grow in the colon have the power to manufacture poisons which when absorbed into the blood dissolve the blood-cells and destroy them; so the thing to do is to suppress the growth of these germs. And flesh food contains these very germs. So the first thing is to leave out meat entirely, stop this destruction of the blood by a change of diet; and in most cases people who do this rapidly recuperate and build up new blood.

I met this evening a gentleman who was here last year with pernicious anemia so bad that it seemed his case was almost hopeless. He lay helpless in bed, and his wife was looking at him with glistening eyes while I examined him, because she thought the verdict would be that he must die. I entered one of the offices this evening, and a fine looking gentleman stepped up and said, "I am Mr. —; I came back here just to show you what a splendid thing you did for me last year." His blood is now eighty-four per cent of normal, instead of fifteen. He feels perfectly well; he has not a thing the matter

with him, but he just wants to make his position a little more secure.

He said, "My wife was with me last year, and when we went home we established a Sanitarium dietary, and have not had meat in our house since. We have a little boy, and all of us took to this diet like ducks to water, and it has done us all good. Just look at me." I believe the first case of pernicious anemia ever cured was cured here in this institution. For twenty-five years we have been curing pernicious anemia, when it has been pronounced a fatal disease all over the world; but within the last few years the doctors of Europe, as well as this country, are coming to recognize the fact that this is a curable disease; but the first thing to be done is to drop out meat.

Professor Strauss, the eminent clinician of Berlin, preaches that to his classes; he says to his young men, "Gentlemen, pernicious anemia is a peculiar disease; no medicine does it any good. But a vegetarian diet will cure it. You ask me why. I do not know, but I know it will. Put your patients on a vegetarian diet, and they will get well."

Now, they do not all get well by simply changing to a vegetarian diet. They get some help; but sun baths, and massage, and some other things help, and hydrotherapy is of great value. Sometimes the patient is so far down that he has to be carried along on the finger-tips, almost, until he gains some strength. If we did not eat meat we would not have pernicious anemia. I have never seen pernicious anemia in a single case of a person who has not been on a high-protein diet. I knew one man who got it from eating too much protose. He had been a meat-eater before, and his intestine was infected with these pernicious anemia germs; so when he ate a great quantity of protose he got pernicious anemia, and nearly died of it.

Q. Is it better to eat each dish separately, or to mix the different foods?

A. It doesn't make any difference; they are going to be mixed anyhow. If you want to see what kind of combinations they are going to make, you may mix them in advance, and I think that would be a good lesson to some people.

Q. I have been taking lime-water diluted after each meal for some time. Would you recommend me to continue it?

A. No; I would not do it any more; you do not need lime-water. It is better for you if you are going to take anything, to take a little soda two hours after the meal in a little water. If you have a great deal of acidity, you can do this, but you must not continue it very long; you must remove the cause of the acidity.

Q. Why do you wear white clothes?

A. That is rather a personal question, but I may reply that it is because the Bible says we are to walk in the light. The only way in which we can walk in the light is by having clothes that will allow the light rays to pass through them. When we wear dark clothes, the light can not get at us. It is like having the windows of a room hung with dark curtains. Pull the curtains aside, and the light will come in. So, if we wear white clothing, we are living in the light.

ARRIVALS

THE list of guests who registered at the Battle Creek Sanitarium for the week ending October 23 is as follows: A. V. Cunningham, Pa.; T. A. Sebring, O.; Mr. and Mrs. M. H. Eldridge and Ben Shapiro, New York City; H. C. Burkint, Boston; W. R. Angell and wife, Chas. D. Warner, and Alfred S. Johnson, Chicago; Lucinda Francisco, Mich.; E. G. McPherson, Mich.; Mrs. Robt. Irving Fulton, O.; Mrs. John C. Sharp and Mrs. C. M. Bane, Mich.; Mrs. Edw. H. Keller, New York City; Wm. H. Havensworth and wife, Wash.; Bishop J. W. Bashford, China; Florence G. Mills, Kalamazoo; Lucy W. Williams, Elnora Chamberlin, V. H. Eddy, Mrs. Chas. D. Williams, Mrs. N. P. Venneman, and Miss Clara Bates, Mich.; T. J. Heller, Minn.; Maude Gilchrist, Mich.; J. T. Wade, La.; Mrs. Wm. Walker and Miss F. Walker, Mich.; Miss Anna Steva, O.; C. E. Goodline, Chicago; Miss Fannie Prichard and F. A. Prichard, W. Va.; H. S. Curtis, Mass.; Mrs. J. W. Hardhurst and Mrs. D. Louise Smith, Mich.; Dr. H. Der Garabedyou, Asia Minor; H. J. Tarr, Chicago; P. E. Hull, Kans.; Mrs. Emma A. Fox, Detroit; Dr. A. E. Awde, N. Y.; S. W. Douglas, O.; Mrs. Jas. B. Arnold and Miss Rilla Arnold, Ind.; E. Nail, Pa.; A. W. Ferguson, W. I.; Miss Olive Ferguson, New York City; D. Frances A. Rutherford and Miss A. J. Daniels, Mich.; C. D. Bole, O.; M. A. Bowman and Mrs. Bowman, Pa.; Mrs. W. J. Loomis, Mich.; Mrs. R. C. Ricker, China; Mrs. Belle M. Perry, Mrs. M. W. Bullock, F. W. Rone, and Mrs. Clement Smith, Mich.; Mrs. W. J. Tarr and Mrs. E. J. Walsh and daughter, Chicago; A. L. Atler, Pa.; Mrs. Thos. Gray and son, Porto Rico; J. E. Shultz, Ind.; Joseph Jarka, Mich.; Mr. and Mrs. John M. Kraus, John A. Kraus, Chicago; Elma C. Gilbert, Neb.; L. C. Somerville, W. Va.; Mrs. R. W. Riley, City; Mrs. G. L. Smith, Mrs. W. W. Warren, and Mrs. E. A. Edward, Mich.; J. E. Schultz, Jr., Ind.; Simon N. Moses, Miss; Kate E. Ward, Mich.; Mrs. W. P. Boomlind and Mrs. K. M. King, Tenn.; E. M. Mustain and wife, Mich.; J. G. Willock, Ind.; A. V. Morgenstern, New York City; Mrs. H. F. Cady and Mrs. W. H. Wheeler, Neb.; E. E. Lyon and wife, Pa.; H. B. Sharkey, Detroit; Jas. Casey, Mich.; J. W. Barter, Ala.; H. H. Williams, N. Y.; Geo. E. Higgins and wife, Kalamazoo; Mrs. Henry Wick, O.; Mrs. C. E. Biggs, Cleveland; E. T. Vance, Wis.; O. C. Murphy, Ga.; J. W. Archibald and wife, Fla.; C. C. Landon, Chicago; M. Lowenthal, New York City; Mrs. D. C. Bradey and Master Wm. Bradey, Ia.; Mrs. W. W. Walters, Ill.; C. F. Appleton, Wash.; Mrs. B. J. Bogue, Ind.; Miss Helen Smith, Toledo; Mrs. Henry B. Baker, Miss Helen F. Baker and Miss Ruby E. Hughes, Mich.; Esther A. Niebel, Pa.; Rev. D. G. Blair, Mich.; J. M. Bradford, Ind.; Miss M. T. Smith and Mrs. John T. Smith, Wis.; Elsie G. Heyland, Neb.; Mrs. Geo. M. Harrison and son, Mich.; A. Mitchell and wife, N. Y.; P. A. Conley and T. N. Matthey, Ill.; Ethel Whitton, N. Y.; Miss Cook, Pa.; Mrs. Mary L. Nelson, Kans.; Henry Furst, Jr., Chicago; Robert T. Fuller, O.;

H. W. Mount, Chicago; T. A. Sebring, O.; W. L. Sloper, Conn.; Dr. W. J. McCormick, Toronto; Mrs. E. M. Bannister, N. Y.; Chas. W. Brown, Pittsburg; Mrs. and Miss Alasca, Los Angeles; Mr. and Mrs. F. H. Plummer, Neb.; Mrs. Jane Spofford, Neb.; S. W. Bradford, Pittsburg.

When the Frost is on the Pumpkin

As the summer dies and the leaves commence to turn, sportsmen of the woods begin to plan for their annual two weeks' shooting. The "Highlands of Ontario," the finest tourist, camping and fishing district in North America, is also the mecca for the hunter, where moose, deer, bear and other large game abound. Write to the undersigned for copy of "Haunts of Fish and Game," which contains a full description of the territory, maps, rates, game laws, etc. *

H. G. ELLIOTT,
917 Merchants' Loan & Trust Building,
CHICAGO, ILL.

An American on the Exodus

At a dinner in honor of a party of American newspaper men in the West not very long ago, Mr. Elmer E. Critchfield, of Chicago, said:

"A good many things have been dropped on our way up here which give us from the other side of this imaginary something called a boundary line, occasion to think. People are telling us, or rather a few people have been endeavoring to tell us, that some of our former citizens who decided to cast in their lot with you have become dissatisfied and are flocking back to the States.

"Gentlemen, the people on the other side of the line who really count for anything and who really do things and help to make the big world go round, understand the animus behind this declaration. You need not be worried in any particular about that declaration, because it is not true. It is not a fact that our people who come over here are going back to the United States. It is not because the people are dissatisfied with you, or with your country, or with your government, or with the administration of your laws, or of the conditions which they find, that they are going back. You are all big enough to know that occasionally a man becomes dissatisfied without cause. The disgruntled individual is not going to do you any good if he remains here. Let him go back.

"We have a department of our government whose duty it is to enter and make a complete check on every man who crosses this imaginary line, and out of the 758,000 we have gladly contributed you, less than 204 have come back." (Advt.)

A NOTABLE MEETING

THE State Federation of Women's Clubs of Michigan held its annual meeting in Battle Creek last week. There were present about four hundred delegates from abroad, and these with the local membership made up a large and enthusiastic meeting. The principal event was the banquet given the conference by the Sanitarium on the evening of the 19th inst. This was spread in the gymnasium and the guests numbered about six hundred. The menu was characteristic of the Sanitarium and was as follows:

Salpicon of Fruit	
Ripe Olives	Radishes
Cream of Tomato Soup	
Nut Meat Loaf—Creole Sauce	
Parisian Potatoes	Green Peas
Buns	Raspberry Nectar
Bulgarian Salad	Celery Sandwiches
Cabinet Pudding	Orange Sauce
Grapes	Oranges
	Apples
	Caramel Cereal

The program of toasts was:

"The Early Days of Federation"—Mrs. Emma A. Fox.

"The Club Women of To-day"—Mrs. F. G. Mills.

"Club Husbands"—Mrs. Frances Wheeler Smith.

"Our Greatest National Asset—The Child"—Dr. Carolyn Geisel.

"The Woman Lobbyist"—Mrs. Kate V. English.

"The Altruistic Spirit"—Mrs. Lucy W. Williams.

Mrs. C. E. Stewart, wife of Doctor Stewart of the Sanitarium staff, presided at the tables in the capacity of toastmistress, a place which she filled to perfect acceptance. The after-dinner speeches were pithy and pointed. Our photographer took the scene just after the seating of the guests, only a portion of whom could be shown in the picture. The task of entertaining so many in the dainty manner required by the occasion, in addition to nearly as many regular guests, served to illustrate the capacity of the Sanitarium for feeding people, and the way in which it was performed awakened the admiration of all.

The meetings in the city were held principally in the First Methodist church and were largely attended. An evening address on "The New Hygiene," illustrated by the stereopticon, was given by Dr. J. H. Kellogg, and the discussion of health was made one of the leading features of the occasion.

Homeseekers' Round Trip Rates

— VIA —

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To certain West, South-West, North-West, South and South-Eastern States on First and Third Tuesday of each month. Return limit 25 days. Full information gladly given.

L. J. BUSH, Pass'r Agt.

News and Personals

Dr. and Mrs. J. H. Kellogg entertained the faculty and students of the Sanitarium Normal School of Physical Education on Tuesday evening. All report a very pleasant and profitable time.

Mr. A. L. Spence, who for some months has had charge of the City Mission, has resigned his position and the work is now carried on by the various churches of the city until such time as permanent arrangements can be made.

Among recent arrivals are Mrs. H. B. Baker and Miss Helen Baker, wife and daughter of Dr. H. B. Baker, one of the pioneers in public health work in the United States and for many years Secretary of the Michigan State Board of Health.

Mrs. Eva B. Whiton, accompanied by her daughter, Miss Ethel, and two lady friends, have arrived at the Sanitarium, having made a pleasant automobile trip from Olean, N. Y. Miss Ethel Whiton remains at the Sanitarium for a course of treatment.

Sunshine Hour is a welcome cheerer to the large number of patients who gather in the parlor every afternoon at 3:30. Doctor Read is a born optimist, and the information he gives in a chatty way about how to get quickly into the royal road to health and to make rapid progress is much appreciated.

The attendance at the Sanitarium is keeping up unusually well, the family being much larger than is usual at this time of the year. The beautiful weather has greatly encouraged out-of-door recreation, and walking parties and tennis parties and outdoor gymnasium work have all been very popular.

The Sanitarium Nurses' Alumni Association is planning an entertainment of high merit to be given shortly, and have requested that our readers be holding themselves in readiness for definite announcement of place and program next week. If they say it is to be good, it doubtless will be so, and they do say it. The date is Saturday evening, Nov. 5.

Mrs. W. P. Brownlow, of Tennessee, whose husband was for several years Congressman from his district, is a patient at the Sanitarium. Mrs. Brownlow is a niece by marriage

of the late noted Parson Brownlow. Mrs. Brownlow is accompanied by her daughter, Mrs. K. M. King, whose husband is in charge of the Soldiers' Home of Tennessee.

Other new patients are: Mrs. Eliza Arbaseal and her daughter, Miss Mary, from Los Angeles; Mr. F. W. Rowe, of Ithaca, Mich., a well-known hotel-keeper; Mr. M. H. Bowman, a bank official of Uniontown, Pa.; Mr. J. C. Wade, a prominent merchant of Frimore, La.; and Mrs. Jane Spafford, of Adams, Neb., who was a former patient of the Sanitarium.

Dr. W. J. McCormick, of Hyde Park Sanitarium, Toronto, is making a visit to the Sanitarium, accompanied by one of his patients, who is here for treatment. Doctor McCormick is a graduate of the American Medical Missionary College, and reports that

\$2.15

GRAND RAPIDS, MICH., and RETURN

— VIA —

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Kindly ask for full information.

L. J. BUSH, Pass'r Agt.

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A CLASS DEMONSTRATION

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	Room (with room-mate)	1.00 per week
	Table board	2.00 per week

A SPECIAL FEATURE of this School is that students are given an opportunity to meet a large part of their expenses by employment of a character that will aid them in their training.

Address all inquiries to

The Sanitarium School of Health and Household Economics,

LENNA F. COOPER, Director,
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The Battle Creek Sanitarium School of Health and Household Economics furnishes two courses in Domestic Science, based upon the principles of Health and Hygiene as established by the most recent findings of scientific investigation.

THE ONE-YEAR COURSE

Is especially designed for matrons and housekeepers, and those who desire education and training in Cookery, Dietetics, Chemistry, Home Nursing, Household Economics, and kindred subjects.

THE TWO-YEAR COURSE

This course gives necessary instruction and training to prepare those who take it to fill positions as dietitians, lecturers, and demonstrators.

Details of courses are given *in extenso* in the Annual Announcement, which will be sent on application.

the sanitarium enterprise is prospering greatly. Physiologic principles are getting a strong foothold in Canada.

On Sunday evening Rev. Richardson, of Burma, gave a most interesting address on the subject, "Do Missions Pay?" The meeting was led by Chaplain McCoy, who in his closing remarks paid a high tribute to the way in which the speaker had marshaled his facts which proved beyond question that in all lines—educational, social, commercial, and religious—the answer must be in the affirmative.

Other recent arrivals are: Mr. E. E. Lyon, a hardware merchant of Greensburg, Pa.; Rev. D. G. Blair, pastor of the Congregational church of Big Rapids, Mich.; Mr. H. H. Williams, a well-known real estate man of Corning, Ark.; Attorney L. C. Somerville, of Point Pleasant, W. Va.; Mr. J. E. Shultz, a hotel-keeper of Michigan City, Ind.; Dr. C. C. Landon, a prominent dentist of Chicago; and Mr. E. C. Martin, a prominent broker of Tacoma, Washington.

The Sanitarium family greatly enjoyed a series of short readings given in the parlor on Sunday afternoon by Mr. Robert Irving Fulton, A. M., dean of the School of Oratory and Professor of Elocution and Oratory in Ohio Wesleyan University. Professor Fulton is a master of his art and charmed his large audience by the grace and naturalness of his delivery. His selections were given in the "Sunshine Hour" and were especially appropriate to that occasion. Mrs. Fulton is spending some time at the Sanitarium, and we hope we shall hear her talented husband again.

We are all pleased at the arrival of Rev. Alex. H. Leo, accompanied by his wife and two children, and Porto Rican nurse. They are missionaries in Porto Rico representing the Methodist Church; and in addition to his regular work Mr. Leo is greatly interested in the health of the poor natives, nearly half a million of whom are afflicted with the hookworm. He expects to increase his work by the addition of a number of dispensaries, and will be accompanied on his return by three physicians. Mr. Leo will assist in the religious work of the institution while spending a few weeks with us learning and observing the methods employed here.

The Christian Endeavor meeting of last Friday evening was well attended, and was most ably led by Miss Hannah Cramer, the subject being, "The Chances We Miss." The meeting was conducted by Mr. W. C. Kellogg, and a large number took part in the testimonies following the leader's presentation of the subject. The subject for next Friday is "In Other Lands." It is expected that it will be a meeting of unusual interest, for the resident missionaries will represent in native costume the lands from which they come. It is expected that nearly a dozen countries will participate in the exercises of the evening.

It has been decided to revive the "Social Hour" in the Sanitarium parlor, which is to be observed on each Wednesday afternoon.

The first meeting this season was held this week, the entertainers being Miss Harriette Williams, an elocutionist of fine talents, who rendered two numbers. The principal one was "The Perfect Tribute," the celebrated eulogy of Abraham Lincoln, by Mary Shipman Andrews; and a pianologue entitled, "Stay in Your Own Back Yard." Miss Williams has earned many testimonials to the excellence of her work, and gained new laurels on this occasion. Miss Mary Ross also contributed to the pleasure of the hour by her delightful singing. Miss Ross is a local artist whose singing is always much appreciated by Sanitarium audiences. There was a large attendance, and the future meetings are sure to be of peculiar interest, as they are to be under the direction of Mrs. Fanny E. Dowkontt, the social matron.

Dr. J. H. Kellogg addressed the Sanitarium family on last Sabbath afternoon on

the topic of "Divine Healing." Starting out with the proposition that there is and can be no healing other than divine healing, the speaker claimed that the days of miracles had by no means gone by. Inexplicable manifestations of life and vital force are all about us in nature. No one can fathom the phenomena of life, nor can the term itself be analyzed or accounted for by scientific exploration. We may approach the secret springs of life, but we can not explore them, and are compelled to acknowledge the existence of an invisible but infinite Power behind the picture which we denominate "Nature." But nature is only a panorama on which the works of the Creator are displayed. The power that heals is creative power. The work of healing and restoring is even more complex than that of forming a new being. There was a large audience in attendance, who listened with great interest. We were promised a continuation of the theme.

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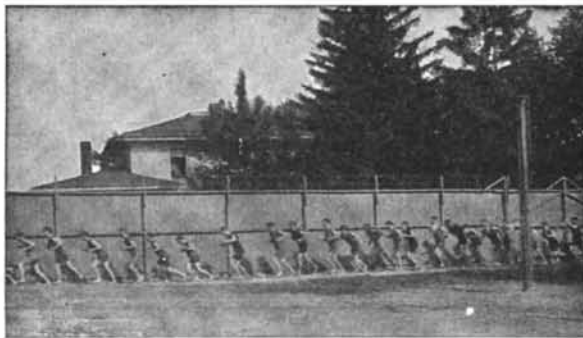
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Unusual opportunities are given for earning money toward expenses.

For full particulars address:

WM. W. HASTINGS, DEAN, SANITARIUM, Battle Creek, Mich.

THE · BATTLE · CREEK · IDEA



Vol. III No. 48

BATTLE CREEK, MICH., NOVEMBER 4, 1910

Price 2 Cents

HUNGER AND SWALLOWING

Mr. Horace Fletcher Defines Hunger and Describes the Process of Chewing and Swallowing, in the Sanitarium Parlor

I WANT to tell you in particular how we may, in the matter of digestion, keep within the field of our own responsibility. Hunger is an indefinite term, meaning a body want. Hunger has a language, and we call that

HYDROTHERAPY OR WATER-CURE

A Modern Term for an Old-time Practice — How Water Serves as a Remedial Agent

AMONG the natural agencies used in the Battle Creek Sanitarium for the treatment of diseases probably the most prominent is pure, simple water. Little value, except in the case of the effervescent bath, is put upon mineral waters by the medical faculty of this

THE BLOOD PRESSURE WHAT IT SIGNIFIES

In a Recent Lecture, Dr. J. H. Kellogg Tells His Hearers that High Blood-Pressure Saves Their Lives

THE phenomenon of the blood-pressure has come into prominence in medical circles in recent times. The reason for its being held in abeyance all the past years was the want of proper instruments for measuring the degree of pressure; and it might be truly said



IN THE BLOOD LABORATORY

language appetite. Hunger is a very much misunderstood term. Hunger is never expressed by any symptom, by any feeling, by any sensation below the guillotine line. A pain at the cardiac opening of the stomach, which we call faintness, or all-goneness, has no relation to hunger at all. It is the same sort of an unfortunate feeling that comes to a man the morning after he has been on a

(Continued on page five)

institution. Water has a large place in the vital economy, since three-fourths of the weight of the body is composed of water, and there is a demand for a constant supply of this life-giving fluid. But the vital use of water as a food or tissue builder is distinct to a great extent from its use as a medicinal agent. In the latter character, its utility consists entirely in the manner in which it af-

(Continued on page three)

that the importance of the blood-pressure in diagnosis was not understood until it was possible to compute it accurately. Since the introduction of practical means for taking the blood-pressure in man, it has become a very prominent factor in determining the condition of the vital economy.

What the Blood-Pressure Is

It will be readily understood by all that a certain amount of force is necessary to send

the volume of blood in our arteries and veins coursing about the body. This becomes all the more obvious when we consider that much of the blood has to pass through very minute tubes or capillaries, smaller than the finest hair, and the entire quantity of the blood, about five quarts in a man of ordinary size, makes a complete circuit once in every two minutes of time. The amount of force that is required to cause this rapid and difficult circulation is not inconsiderable, as all will clearly see. Considerable force will be required even when the vessels are all free and open, and no obstructions are found; but when the vessels become obstructed, the walls of the arteries become hardened, and the apertures are nearly closed up, then the task becomes more difficult, and the force required is greatly increased.

This force, which is furnished by the contractions of the heart, is called "blood-pressure." And that is what it is, for the force manifests itself by its pressure upon the walls of the arteries, just as steam pressure manifests itself upon the walls of the boiler and steam pipes connected with the boiler. The gauges of different boilers indicate a pressure anywhere from a few pounds per square inch up to two hundred or more, according to the strength of the boiler and the amount of force required. Where steam is wanted simply for heating purposes, it is necessary to have only sufficient force to carry the steam about through the system. The greater the heat desired, the more force is required, and when machinery is to be driven, the pressure must be further increased.

The Normal Blood-Pressure

is perhaps 110 points. That is, the pressure on the brachial artery in the arm should be sufficient to raise a column of mercury 110 millimeters in height. But as the arteries become clogged and closed up as the result of many years of bad practices in eating and drinking and other abnormal conditions, the pressure so increases that the mercury is sent up to 140, 160, 180, and 200 millimeters, and even higher than that.

Now, the query arises, Is this high blood-pressure dangerous? The pressure itself is not the most dangerous thing, but rather the degenerated condition of the blood-vessels. We have reason to be grateful that our lives are spared by the ability of the heart to do the extra work that is thrust upon it. What shall we do to relieve the blood-pressure? The blood-pressure is no higher than it needs to be under the circumstances in any case. Is not a high blood-pressure a serious symptom? It surely is; that is, it indicates a serious condition of things somewhere. Do not give your principal attention to the blood-pressure, however, but find out the causes and remove them.

The First Thing

is to stop promoting high blood-pressure. There are several things that make high blood-pressure. One cause is low spirits; so the very first thing to do is to forget that one has a high blood-pressure. I knew a man who ran his blood-pressure up twenty points by worrying about it. Worry will raise the blood-pressure. When a man is scared or worried, he always looks pale.

People's cheeks are flushed with joy sometimes, and with hope, expectation, and a feeling of good spirits; but nobody ever gets rosy cheeks because he is disappointed, or unhappy, or has "the blues." When a person is pale, that means that the blood-vessels of the surface of the skin are contracted; and then it is harder for the heart to get the blood through, and that raises the blood-pressure. No matter how high the blood-pressure may be, remember, always, that it is not a bit higher than it needs to be. When your blood-pressure is high, it is because it is necessary that it should be high. You should be thankful that it is high. If the blood-pressure is 250, it is because it requires a pressure of 250 to get the blood through all the different parts of the body where it needs to go. As a rule, it is believed by a good many eminent authorities, that in general the blood-pressure never rises very much permanently unless the kidneys are diseased; so if you have a blood-pressure of 200, it means that your kidneys can not do their work without that blood-pressure.

You say, "Why should we try to reduce the blood-pressure, then, if it is so necessary?" I reply, Do not try to get it down except by removing the causes which force it up to abnormal height. If we remove the obstructions, the pressure will come down of itself. The pressure of the blood is not the thing to be fought, because our lives depend upon it. Without it no blood would circulate in our bodies. We should all be thankful that we have sufficient pressure upon our circulatory system to force our blood about, even against all obstacles. Our hopes all depend upon our ability to keep up that pressure, and upon the ability of our arteries to hold out and not rupture under the pressure.

It will be seen at once that the higher the pressure that must be maintained in our arteries, the harder the heart must work. The heart is the pump where this force originates, and it is more than twice as hard to maintain a pressure of two hundred millimeters of mercury than it is to maintain one hundred. There is great danger that under this extra stress of labor the poor, tired heart may at some time give out; and the papers next day will write, "heart failure" over against our names. Or, one of the exceedingly delicate vessels which convey the blood to the brain may give way under the extra pressure, and then the verdict will be apoplexy or hemorrhage of the brain. It will appear, then, that the causes of high blood-pressure demand serious attention and careful removal.

What Are Some of the Causes?

Worry is one of the things that cause it, as I have just said; so you must cease to worry. It works all sorts of mischief. "How can I help it?" Cast it out; flee from worry. I have seen it done a great many times. People have gotten rid of the blues and worry by cheering up somebody else. It does not do a bit of good to worry. It makes trouble, it makes things worse. Determine that you are going to do your best; then leave the consequences to Providence. Gymnasium exercises will help to get rid of a whole lot of these causes of high blood-

pressure by improving the breathing. Exercise will improve the circulation of the blood through the liver, and get the blood that is stagnating in the interior of the body where it is not wanted, out into the general circulation. The heart is perhaps crowded with blood. The breathing exercises will unload the heart and will improve the circulation.

Another Thing Full Breathing Will Do

is to help to absorb the food that has been digested; it also helps to move the food out of the stomach. That is why we have these exercises after breakfast and after dinner—to help the stomach get rid of the load put into it. The diaphragm coming down upon the stomach gives it a good hearty squeeze and forces out of it the food that has already been digested. These are some of the most important things which help digestion, help the breathing, purify the blood, aid in keeping the arteries wide open, so as to lower the blood-pressure. The blood-pressure is always lower after exercise.

Another thing that raises blood-pressure is the use of coffee, tea, or cocoa. And also there are beefsteak, alcohol, cigars, and tobacco in all forms.

I Was Surprised

to see in a paper a day or two ago that one of the noted literary women of the day smokes cigarettes and recommends them to ladies. She says the use of cigarettes is increasing among women; and I am much afraid it is. I meet ladies who admit that they have the habit of smoking cigarettes much more frequently than formerly. Women of note in certain circles, and in all our large cities, are using cigarettes with increasing frequency. That is only another evidence of the constant increase of degeneracy which the race is undergoing everywhere, especially in the great centers. Now, those things must all be discarded forever by one who has high blood-pressure. He must leave off tea and coffee, under all circumstances, and never use tobacco in any form; and never use any more meat of any kind. We can not find any real good reason for meat eating. It is a habit that has been acquired by the race, but it is an unnatural thing. I wonder how many of the people here have found that they get along comfortably without meat and are really quite satisfied with their food, and feel no longing for meat of any sort. Please hold up your hands. (Many hands are raised.) I think I ought to applaud that vote, because it shows how universally that law is operating here. Fully half the people here testify that they have no appetite for meat at all. Bread is one of the necessities of life, and if we do not have bread, the longer we go without it, the more we want it. But the longer one goes without flesh the less he wants it, and the more disgusting it becomes; and that is proof that it is not a natural food, and that we can get along without it better than with it. It is coming to be recognized everywhere that meat is a source of this great degeneration that is going on all the time.

Professor Lorenz, of Carlsbad, has observed that persons who eat meat largely have degeneration of the thyroid gland. And this is one of the things that causes high

blood-pressure, because the thyroid gland produces a secretion, thyroïdin, which lowers blood-pressure; that is its function, while the adrenals, the suprarenal capsules of the kidneys produce a secretion which raises blood-pressure. One raises it, and the other lowers it, and they keep up a balance in the body. When meat is used very freely, the meat extractives stimulate the suprarenal capsules and so cause a great rise of blood-pressure, and the thyroid gland has to become very active to secrete enough thyroïdin to antagonize it; so after a while it gets worn out by being overworked. The ultimate result of overwork is always degeneracy. Degeneracy is the positive and certain result of long continued overwork. Now, when the thyroid becomes deficient, there is a certain group of symptoms indicating it. One of these is the browning of the skin, because the thyroid can not destroy the poisons which produce that brown color of the skin any longer, and soon the skin becomes wrinkled. When the thyroid is absent, then the adrenal secretion is too abundant, the blood-vessels are contracted by the adrenal secretion, and the blood-pressure rises, and the rise of blood-pressure itself serves to increase the hardening of the arteries and bring about arteriosclerosis. Tobacco and alcohol have a similar effect.

HYDROTHERAPY, WATER-CURE

(Continued from page one)

fects the body and its functions when applied according to scientific principles, which have been formulated into a system by painstaking study and investigation, and long years of experience.

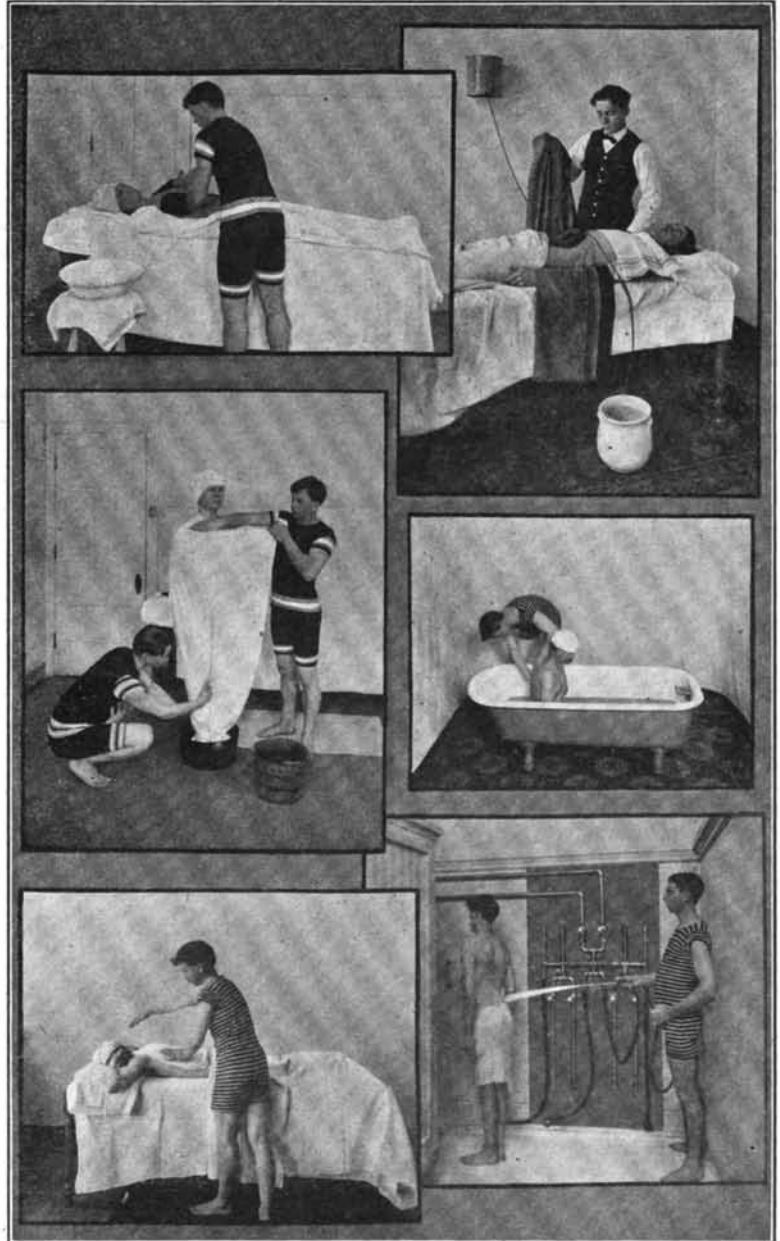
In a word, it may be said in general terms that the therapeutic value of water consists very largely in its adaptability as an agent for conveying desired degrees of heat and cold. There is no other medium so available, so easily applied, and so effectual in its work as is water in many of the uses to which it is devoted in hydrotherapy. To be sure, water is used extensively and effectually as a depurating agent. No other substance has such qualities for flushing out impurities, for cleansing effete matter, and rendering various operations of the human system facile and effectual.

The uses of water for conveying the sensations of heat and cold to the body, or to portions of the body, are legion in their forms and manners of application. Over two hundred different forms of the application of water are used in the Battle Creek Sanitarium. Hydrotherapy is indicated and employed in a great majority of the ills to which flesh is heir. Whether it is desired to cool the body or to heat it, whether it is desired to stimulate or retard the activities of the body or any of its organs, water is the thing ready at hand, cheap and reliable, and always effectual when intelligently applied.

It would be impossible here to go into a detailed treatise upon the uses of water in the treatment of disease. There are a few general and universal principles with which everybody should be familiar. Heat expands tissues and cold contracts them as readily as heat and cold expand and contract metals.

Heat accelerates activity, and cold retards it. Quick, short applications of cold are stimulating, and continued application of heat is depressing. Not only may the surface of the body be treated effectually by the application of water, but the internal parts may be effectually and instantly reached through the medium of the multitude of nerves which have their peripheral terminals in the skin and form an intimate connection

most satisfactorily. Fevers are subdued and the circulation of the blood is regulated with great readiness and almost unvarying exactness by the use of heat and cold with water as a medium. The term "water" includes in this discussion both ice and vapor. The application of cold in the form of ice contracts the blood-vessels and retards the vital activities. It subdues the action of the heart; an application of ice over the heart serves the



HYDRATIC MEASURES

with the various internal organs. Each internal organ is represented on the surface by an area, the nerves of which are reflexly related with it. This area is called the "face" of the stomach, or heart, or liver, or whatever organ we may wish to reach. Generally this area is over the organ or adjacent to it, but not always is it so.

Congestion, either external or internal, is controlled by the use of hot and cold water

purpose of slowing down its violent action most effectually, while the application of moist heat serves the opposite purpose. Congestion of the brain or head, causing headaches, is removed by heating the feet and lower limbs, thus enlarging their blood-vessels and attracting the blood away from the head. At the same time application of cold to the head, and to the arteries leading to

(Continued on page five)

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HOW SHALL WE GET THROUGH THE WINTER?

THE approach of a rigorous winter is likely to fill the mind with more or less solicitude, and we are, perhaps, inclined to wish that the dreary months were past, and that we did not have to spend so much time in the embrace of old Boreas, chilled by his icy breath and exposed to his cold companionship. There is the danger of colds and grippe, and exposure to pneumonia, and several less formidable possibilities. There will be sudden and marked changes in temperature and weather, and there is the great problem of keeping warm in the house and out of it.

But it is not best to spend our time in lugubrious meditation of the possible evils that may overtake us; for the winter season is a grand time, after all. The very rigor of the cold and storms is calculated to strengthen the sinews of life and to give us a firmer grasp on existence, and not mere existence, but vigor, energy, power, and stamina.

One has but to go to a tropical region where frosts are unknown to observe how salutary are the effects of cold upon the vigor and energies of the people. It is in countries where cold winters prevail for a portion of the year, where frosts purify the air, increase the ozone, fortify the systems of the inhabitants, and compel their activities, that things are done. The gigantic feats that characterize the world of progress have had their origin with people whose hearts have been tempered in the rigors of winter, whose energies have been stirred by blizzards and storms; they have not been nourished in the effeminate regions of eternal summer.

Winter is a season of opportunities many and grand. There is not that press of business and work, and time may be had for study, for recreation, and preparing for work in the future. The fancied dangers of the winter season may be guarded against, and in nearly every case averted, by reasonable caution. Do not make the mistake of shutting yourself away from the air. Leave the windows of sleeping apartments open as in summer. Dress and undress in warm com-

partments, have the bed warm either by artificial heat, as electricity or some simple device, or else provide necessary clothing, though the artificial heat is better than the large amount of clothing. Do not keep the dwelling rooms too hot. Anything above seventy degrees Fahrenheit is too hot. Two degrees below that is better. Accustom yourself to more cold air and great benefits will be seen. The danger of contracting colds, influenza, and kindred complaints will be lessened. Our overheated houses are largely responsible for the increase in pneumonia in late years.

Eat healthful and substantial food consisting largely of carbohydrates, to be used as fuel in the body. The amount of protein foods required will be limited, as there is not likely to be much waste of tissues. The large use of fats and meats serves to clog the system, and have given occasion to the prevailing custom of drinking spring tonics and bitters, used, as is supposed, for the cleansing of the blood and system in the spring of the year. Then bitters and purgatives, blood-purifiers, and a whole host of nasty nostrums are swallowed by people who have carelessly stored their bodies full of waste material.

Let us be thankful for the blessings that come to us in the winter, and let us make up our minds, cheerfully and courageously to meet whatever emergencies it may bring, to treasure its opportunities, and absorb its life- and vigor-giving atmosphere to our fullest capacity. This does not mean to expose one's self to needless hardship in order to inure the body to the cold, but simply to recognize the purpose of Providence in giving us the snow and in scattering the hoar frost like ashes, and to avail ourselves of that purpose.

AN ATTRACTIVE ENTERTAINMENT

THE Nurses' entertainment to be given in the gymnasium on Saturday evening, Nov. 5, is given under the auspices of the Nurses' Alumni Association. It will be just an evening of good cheer. A good program has been provided, which contains music, tableaux, humorous selections from prose and poetry. The proceeds of the entertainment are to be devoted to the Hampton-Robb Memorial Fund. The fund is so named in honor of Mrs. Hampton-Robb, who was so suddenly killed in an automobile accident a few months ago. Her death, seemingly so untimely, was much regretted by every one who knew of her untiring efforts to revise the standard of the profession of nursing. Miss Hampton, who was a trained nurse, had previous to her marriage, written some well-known books on nursing. After her union with Doctor Robb, her interest in the profession of nursing became still more intensified, until her name became associated with prominent educators of nurses, and was also

a synonym for the most advanced and careful training of nurses. Some ten years ago a Nurses' Registration Society was founded, the object of which was to place upon a recognized footing all graduated nurses from regularly qualified training schools, thus drawing a sharp line between professional and non-professional nurses.

Departments of nursing have been founded in several Universities, the one in Columbia University in New York being under Miss Adelaide Nutting, formerly of Johns Hopkins Hospital of Baltimore. A chair of nursing will soon be created in Columbia. To enable graduate nurses to take advantage of these courses, which will qualify them to be good teachers of nurses, the Hampton-Robb Memorial Fund has been started; and the nurses of the Sanitarium rightly wish to have a share in raising that fund, which will do so much to elevate the profession to a point of merited excellence.

MISSIONARIES NOW AT THE SANI-TARIUM

THE missionary family at the Sanitarium at present includes a large number of representatives of distant lands, of whom all are seeking that rest and physical upbuilding necessary to enable them to return to their work for the Master in those fields where the strain and stress of foreign climate and surroundings make such heavy drains upon the system.

Japan is represented by Miss Eva Rolman, of the Baptist Board. This lady has made a long and patient fight for health, and we are glad to notice how much improvement she is making.

Miss Nellie Cole and Miss Glenny, of the Congregational Mission in Turkey, are also taking treatment here, and finding opportunities to meet some of the Armenian students from the mission schools who are working in various departments of the Sanitarium.

Rev. and Mrs. H. P. Steigerwald, of the Brethren's Mission in Bulawayo, Africa, and Mrs. Joseph Clark, of the Congo, are representatives of the land which is fast coming into the light of the Gospel.

The Baptists of Burma are represented by Rev. W. E. Wiatt, of Moulmein, and Mrs. W. H. Roberts, of Bhamo. It is a disappointment that her husband, of whose noble work we are cognizant, was not able to find time to visit the Sanitarium.

Rev. and Mrs. J. C. Richardson, of Rangoon College, Burma, are welcome guests, as is also the little son who was born here a few days ago.

Rev. and Mrs. Wm. Dring have been laboring in Assam for several years under the Baptist Board.

Among recent arrivals we gladly welcome Rev. and Mrs. R. H. A. Haslam, of Canada, who labor under the auspices of the C. M. S. in North India; and Rev. C. F. Appleton, of the Free Methodist Mission in China; also Rev. and Mrs. K. E. Pease, of the Methodist Boys' College in Singapore.

Mrs. J. W. Bashford, of Peking, China, is also a guest at the Sanitarium, and an all too brief visit of Bishop Bashford was much enjoyed by the Sanitarium family.

The Scandinavian Alliance Mission is represented by Miss Gena S. Anderson, of Shian-foo.

Porto Rico sends Rev. and Mrs. Alvin A. Cober, who have been laboring in San Juan under the Baptists; and Rev. and Mrs. Alex. H. Leo, of the Methodist Board. Mr. Leo is much interested in fighting the hook-worm disease, and is seeking to establish a chain of dispensaries throughout the island.

Mrs. Thomas Gray and her little son come to us from the Caroline Islands, where she and her husband have labored under the Congregational Board.

While Dr. and Mrs. H. L. Canright are not guests of the Sanitarium, as Battle Creek is their home town, we are privileged to see them quite frequently, and have much appreciated their helpfulness in the various meetings of the Sanitarium.

HYDROTHERAPY, WATER-CURE

(Continued from page three)

the head, contracts the blood-vessels and causes less blood to flow to the head.

Heat is a great reliever of pain by dilating the blood-vessels and thus causing a freer flow of the blood, permitting it to escape from the congested parts. Heat also acts directly upon the nerve fibers, lessening their irritability or sensitiveness to pain.

The action of water upon the nervous system is pronounced and definite. And through this action the quality of nerve energy may be intelligently controlled, and this is an important consideration in the management of any case of illness.

A visit to the Sanitarium treatment rooms will reveal some of the many ways in which this potent and practical agency is employed. It has a great advantage over other measures in that the practice of hydrotherapy does not fill the system with poisonous substances which must be eliminated. The stimulus is perfectly in harmony with the natural functions of the body, and only serves to promote normal activity.

We present on this page a picture showing some of the methods for applying water in common use in this institution, and many others might be shown and illustrated. But perhaps enough has been said to impart some general impression as to the philosophy upon which hydrotherapy has its basis, and it will be found to be perfectly sane and sound from every point of view. For many years water-cure was not reduced to a system; it was almost wholly empirical and unreliable, often doing more harm than good in the hands of unskilful and unscientific parties. It has not passed entirely out of such hands even now; but, as applied in this institution, its use and its results are commended by all intelligent physicians.

HUNGER AND SWALLOWING

(Continued from page one)

drunk. It means a protest either against a habit of taking food at frequent intervals, or fermentation of some sort; but it has no relation whatever to hunger.

Hunger is Only Expressed

above the guillotine line, and in the form of a keen desire for some simple food. When some simple food is thought of or mentioned, accompanied by what is called watering of the mouth, and when food is taken in response to an earned, a keen, appetite, it practically "melts in the mouth," as we say; that is to say, the body wants it, the body provides the digestive or the preparatory agents for it.

It does practically melt in the mouth, and it swallows itself; and if the food is taken under those favorable conditions it will be digested quickly, assimilated very quickly, and you will hear nothing of it except in terms of life, after nature has transformed it into nutriment, into energy. Therefore, the first consideration is,

Never Take Food Until You Have an Earned Appetite,

until you are genuinely hungry. Do not take food because the bell rings; do not take it because somebody invites you to take it; be sure that you have the appetite; it will do no harm to wait a while to see whether or not it is a real appetite; skip a meal, or two, or three.

I recently tried an experiment in the study of the psychology of appetite, in which I went seventeen days without any food at all, to find out what a real appetite was, and then I did not find out. During all that seventeen days I experienced no hunger whatever, for the simple reason that the body was drawing upon its own resources. It does no harm to wait until you have the bodily want, until you have the watering of the mouth, until you are in proper condition.

And then let us experiment with one little morsel of food. Take an ordinary piece of bread, and if it looks as if it would taste good, you have a real, earned appetite. You put it in the mouth, you hold it there for a moment, you find simply that it has no taste at all, because starch in that condition has no taste until it is transformed into maltose by the action of the ptyalin of the saliva; but the moment you begin to use the jaws the saliva begins to mix with the morsel of bread; the chemical transformation begins at once; that transformation is indicated by taste, and that taste goes on increasing in sweetness, until finally the morsel has become a creamy mass and has collected at the gate which shuts off the human responsibility from the responsibility of nature; it is sucked up and swallowed, and the full requirements of transforming that in the laboratory of the mouth have been performed.

It is the same with regard to any food. Any food which has taste should be treated in this way in the mouth until all of the taste is extracted, until it swallows itself; which it will do. There is complete closure at the back of the mouth which shuts off the rest of the alimentary canal from the mouth every time the food is in the chewing process, and that remains closed, normally, until the food has been properly transformed.

To Show You the Mechanism of It,

I will give you a little outline of a method of testing it. When you have a real, earned appetite, take a morsel of bread into the

mouth, and hold the head down while you are eating it,—and that is the only natural way of holding the head in order to facilitate swallowing. If you hold your head horizontally, you will find that it is difficult to swallow. Now, this is a bit of physiology with which you are not familiar. Lift your chin a little and try to swallow, and you find it more difficult still; lift it a little more, and you will find you can not swallow at all; whereas, if you hold your head down, you will find you swallow with the utmost ease. Comparative zoology declares that this is an argument in favor of the claim that at one time we took our food on all fours.

Put the bread in your mouth and begin to masticate it and it becomes creamy; if you hold your head down, with the tongue hanging perpendicular in the mouth, you will find that creamy substance will crawl up the tongue against gravity and will assemble at the closed gate at the back of the mouth.

Here is Something New in Physiology.

Right in front of that gate on the floor of the tongue are located five and sometimes seven little protrusions which are called the circumvallate papillae. In proportion to the area of the mouth, they are as important as fence posts in relation to a back yard; and not only are they prominent, but around each one of those is a little trough or mote, and in these troughs or motes terminate an infinite number of taste buds, that is, nerves with ends or buds, and those are there, not for the purpose of tasting, because we are not conscious of taste in that region of the mouth. We taste in front, on the tip of the tongue, but we are not conscious of taste at the opening of the throat.

Now, the inference is,—although we are not able to prove it excepting by inference,—that those taste buds are there for the purpose of recording, not taste while it exists, but the absence of taste when the taste has been extracted, and the chances are that, being there and nowhere else, when the food is lifted up against gravity and collects at the gate, those taste buds pass upon it, and they send word to the nerve centers in the brain that there is food at the gate; that the taste has been extracted from it; it has been properly transformed or refined in the mouth, and is ready for assimilation; open the gate and let it in. The muscles are relaxed, there is what we call involuntary swallowing; food is sucked back into the swallowing area, it is picked up by peristaltic rings, it is carried on, and in about eight or ten seconds it is landed in the stomach.

The Function of Taste

The study of natural history is the most fitting occupation that any one can enter into, for the reason that the moment you begin to study nature at all, you become wonder-struck, and in no instance more so than in connection with this treatment of the food in the mouth. Taste has been utilized for two or three purposes already in what I have been telling you. It has taught you that bread taken in a way according to the requirements of nature, is more delicately sweet than any artificial sugar you ever tasted, sweeter than any cake; it grows sweeter and sweeter, until that last moment,

when it is sucked up and swallowed. This is an invitation to you to take this reward of merit for eating properly.

But there is another purpose, and a purpose which is more wonderful still, and that is, nature uses the reported taste to notify the stomach what to expect and what to prepare for. While you are tasting the food in the mouth and getting all of that delicious compensation from it as a temptation to go on to satisfy the appetite, nature is utilizing that report through the agency of the great vagi nerves which go down on either side of the head and neck, and have an infinite number of terminals upon the walls of the stomach. These indicate to the stomach what to expect—so much protein, so much transformed starch, so much neutralized acid, so much of this or that, and the stomach knows all about it, beforehand; and if you have faithfully taken all of the taste out of that food, the stomach prepares enough of and the right kind of a digestive agent so that when that food arrives in the stomach after having been transformed in the mouth, it drops into a digestive bath already prepared for it. The gastric juice and the other digestive agents, whatever they may be, are poured out from the glands, and are there waiting for the food. And that process goes on all the way through the body, from the stomach to the duodenum, and so on.

QUESTION BOX DEPARTMENT

EACH Monday evening Dr. Kellogg conducts a Question Box talk in the Sanitarium parlor, where all guests and patients are at liberty to submit questions relating to health and health topics.

Q. What is the effect of a low-protein diet on endurance?

A. I met a gentleman the other day at Chautauqua, a member of the faculty of Chautauqua, Dr. J. W. Seaver. Doctor Seaver has had charge of the physical culture department of Yale University for many years. He also has charge of the physical culture of Chautauqua. When I met the Doctor I complimented him on his good appearance. "Yes," he said, "I am living on a low-protein diet. I have not eaten meat for more than a year. In fact, for nearly two years. When I come to Chautauqua, I have to work all day, and all night too, almost, and I cut meat out entirely while I am here; and I go home in September feeling as fresh as though I had had a vacation, and go right on with my work."

There he has a large school under his care, he lectures every day, at the same time taking care of a great number of sick people, performing surgical operations, and working like a Trojan, and he is living on a low-protein diet. "If I eat meat," he said, "I am so dull and stupid that I even go to sleep in the office with the patients sitting right there; I am ashamed to own it up, but I actually did that once." He wasn't to blame for it, for the meat he ate, decomposing in the colon, sent its poisons out and fatigued the

body. The body is fatigued by poisons absorbed from the colon, instead of by poisons developed from work. It is artificial fatigue. There are various things that produce artificial fatigue.

A German doctor tells a very interesting story of an experience he had in Japan. He employed four coolies to carry him on a long journey into the country, and he observed that they ate no meat, but only rice, beans, and soy, and he told them they ought to eat some beefsteak, because they never could get to the journey's end unless they ate something more strengthening than rice; and they finally did eat some to please him. After a day or two they said to him, "We can not eat any more meat; if you make us eat meat, we can never get you to your journey's end, in the world." And he had to surrender, and let them eat their rice and beans.

Q. How largely is rheumatism caused by a meat diet?

A. It is not caused exclusively by meat-eating. It is autointoxication, or toxemia. Any sort of protein that is not digested and absorbed, but left to rot in the colon, may give rise to rheumatism; it is toxemia. But one can readily see that in the use of a meat diet there is far greater danger of rheumatism than from the use of any sort of vegetable diet, because one can more easily take in an excess of protein.

Q. Is ice water good for a person who has apespsia and a dilated stomach?

A. Most assuredly not. Ice water is bad for anybody to drink, though almost anybody may sip ice water. We do not want that coldness in the stomach; it does no good there; it is in the mouth we want the sensation of cold; so the more slowly we sip the

water, the better it will be for us and the more benefit we will get from it.

Q. Are bromides harmful to children?

A. I should advise you to discard bromides altogether for children unless you want the children to grow up to be weak-minded. Bromides of all sorts are extremely detrimental to the nervous system when used habitually. They may be used temporarily sometimes, but there are better remedies.

ARRIVALS

FOLLOWING is the list of arrivals at the Battle Creek Sanitarium for the week ending October 30: Bert Thomas and W. J. Thomas, O.; A. Shoop, Mich.; J. W. Orr and wife, Pittsburg; Mrs. L. J. Reiny, Ia.; Dr. Geo. F. Brooks, Minn.; Mrs. E. A. Royce, Chicago; Mrs. M. K. Fox, Minn.; C. W. Pidcock and Mrs. G. E. Smith, Ga.; H. H. Albert, Ind.; Mrs. Nellie Morrison, Kans.; Mrs. C. A. Dolman and Mrs. A. E. Gorton, Ind.; Mr. and Mrs. W. I. Gohris, O.; Mrs. A. G. Hooveres, Ind.; Mrs. J. V. Burns, Chicago; Wm. F. Holzhemer, Mich.; Mrs. R. B. Taylor and Wm. R. Taylor, Mo.; Jno. I. Breck, Mich.; Fred B. Holbert and J. Baker, Ia.; A. E. Brogan and Byron Field, Chicago; Rev. H. C. Morrison, Ky.; Miss Coner and Miss Fredericks, Mich.; H. B. Williams, Chicago; John Gillon, Ia.; Frank Miller and wife, Mont.; Miss Laura Cooke, Pittsburg; Robt. V. Garmon, O.; Ora W. Florea, Ethel Florea and Catherine Kinney, Ind.; Elen Naldrett and wife, Mich.; R. C. Stone, City; J. L. Woods, Chicago; J. O. Hamilton, Okla.; Mrs. J. M. Leonard, Mo.; Mrs. M. E. Heenan, Mich.; Miss Lucy Lee Swope, Mo.; George Coon, Philadelphia; Dr. C. J. Morrow, Kansas City; J. K.

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An Illustrated Monthly Magazine Devoted to the Interests of Home and Foreign Medical Missions

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Chilson, Tex.; Mrs. Alvin A. Cober and R. LaRue Cober, Porto Rico; Miss Emma Newell, Pittsburgh; H. A. Hutchins, Panama; Lamford W. Ladd, Detroit; C. S. Collins, Chicago; W. J. Thomas, O.; J. D. Metzger, Ill.; B. L. Woodard, Kalamazoo; Rev. R. H. A. Haslam, wife and daughter, Toronto; Mrs. J. Lord, New York City; Jno. C. Murta, Mich.; S. H. Devoe, Mich.; J. H. Evans, Okla.; Mrs. J. Levitt and Thos. Levitt, Des Moines; Emily May Ely, Mich.; L. A. Bante, Ind.; Mrs. W. A. Mansell, N. Dak.; E. A. Whitney, Chicago; Jas. Kenan, Chicago; Phil Beris, Duluth; Mrs. F. W. Beschall Piler, Pa.; Miss Estelle E. Doremus, New York City; J. A. Uphold, O.; J. E. Patton, Chicago; Mrs. F. L. Alcott and Mrs. C. B. Alcott, Cleveland; S. W. Bamm and wife, Ill.; V. H. Eddy, Mich.; Edward Ryan, Detroit; Victor Weil, Chicago; Alex. McPherson and Geo. L. McPherson, Detroit; B. H. Holes, Mrs. A. B. Banks and children, Ark.; Mrs. W. E. Dittenhoner, Toledo; Mrs. H. F. Osborne and Miss Hattie Osborne, Ont.; Col. H. W. Snow and wife, Ill.; Mrs. H. D. Davis, Ill.; Ruth M. Bushnell, Chicago; Mrs. E. C. Sturdevant, Tenn.; F. A. Sebring, O.; Miss Ada H. Homet, Pa.; Kasson W. Leiter, Minn.; Mrs. R. I. Tustin, Chicago; C. W. Pidcock, Ga.; J. M. Arnsworth, O.; H. P. Allen, Ont.; H. A. Bundsen, Mo.; J. Clyde Murray, Mich.; Ford Woods, Indianapolis; Miss Della Burns and H. W. Mount, Chicago; M. Louise Mitchell and Gertrude Van Buren, N. Y.; W. W. Tarr, Chicago; O. B. Potter, Buffalo; C. W. Burdats, W. Va.; E. P. McGon, City; F. F. Burdick, Chicago.

News and Personals

Mr. J. W. Archibald, a prominent attorney of Jacksonville, Florida, is here for a short stay.

Dr. O. W. Burdats, of Wheeling, W. Va., is here, visiting his wife and mother, who are taking treatment.

Colonel W. H. Snow, of Kankakee, Ill., has brought his wife and daughter, Mrs. H. O. Davis, for a course of treatment at the Sanitarium.

Rev. S. W. Douglas, corresponding secretary of the University of Wooster, Ohio, has entered the institution for a course of rest and treatment.

Dr. C. J. Morrow, a prominent physician of Kansas City, has come to visit his brother, Mr. J. W. Morrow, who is taking a course of treatment here.

Mr. E. T. Vance, a prominent business man of Monroe, Wis., has come to the Sanitarium for treatment. He is a brother of Mr. E. W. Vance, a former patient.

Attorney A. W. Farquharson, a prominent barrister of Kingston, Jamaica, West Indies, has recently come to the Sanitarium with his wife and daughter for a course of treatment.

Rev. and Mrs. H. A. Haslam, of Toronto, Canada, are resting at the Sanitarium for a few weeks previous to their return to North India, where they are doing most successful mission work under the Episcopalian Board.

THE BATTLE CREEK SANITARIUM AND HOSPITAL TRAINING SCHOOL FOR NURSES, BATTLE CREEK, MICHIGAN

This institution offers a three years' course of instruction for women and two years for men. In addition to the usual subjects taught in hospital training schools, special attention is given to all branches of physiologic therapeutics, including hydrotherapy, radiotherapy, phototherapy, kinesotherapy, or manual Swedish movements, and massage.

Among other special advantages offered are laboratory instruction in bacteriology and chemistry, the use of the microscope, urinary analysis, practical course in cookery and dietetics, medical gymnastics, swimming, anthropometry and open air methods.

Applicants received whenever vacancies. The next class will be organized the first of October, 1910. For full information address

Sanitarium,

Battle Creek, Mich.

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The Fall Term begins September 14, 1910.

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A SPECIAL FEATURE of this School is that students are given an opportunity to meet a large part of their expenses by employment of a character that will aid them in their training.

Address all inquiries to

The Sanitarium School of Health and Household Economics,

LENNA F. COOPER, Director,
Battle Creek, Michigan

The Battle Creek Sanitarium School of Health and Household Economics furnishes two courses in Domestic Science, based upon the principles of Health and Hygiene as established by the most recent findings of scientific investigation.

THE ONE-YEAR COURSE

Is especially designed for matrons and housekeepers, and those who desire education and training in Cookery, Dietetics, Chemistry, Home Nursing, Household Economics, and kindred subjects.

THE TWO-YEAR COURSE

This course gives necessary instruction and training to prepare those who take it to fill positions as dietitians, lecturers, and demonstrators.

Details of courses are given *in extenso* in the Annual Announcement, which will be sent on application.

We are pleased to hear from Miss Lucia B. Harriman, formerly editor of this paper, that she is pleasantly engaged with the *Evening Telegram*, of Portland, Oregon, enjoying good health and congenial surroundings.

Miss Lucy Lee Swope, of Independence, Mo., has come to the Sanitarium for a course of treatment. She is a friend of Mr. and Mrs. McElroy, of Kansas City, who have been guests at the Sanitarium for a long time.

Dr. James T. Case is superintending the enlargement of the X-ray treatment rooms, preparatory to the installment of valuable new machinery, which has just been purchased at a cost of \$2,000. No trouble or expense is spared to keep this department in touch with up-to-date methods and equipment.

The family of Rev. Cober, of Porto Rico, are among the recent arrivals at the Sanitarium. Mr. Cober has been taking treatment here for some weeks and is making good progress. Mr. H. B. Williams, of Chicago, is also here for treatment. Mr. Williams is office manager of a well-known organ and piano company.

On Tuesday Dr. Francis E. Clarke, of Boston, "the Father of Christian Endeavor," arrived at the Sanitarium. He addressed a large audience in the chapel the following evening. Several social and public functions have been arranged in honor of Doctor Clarke's visit, which will probably extend a little over one week.

Mr. Ford Woods has come for a course of treatment at the Sanitarium. He is Assistant General Freight Agent of the Big Four Railroad, and is a valued friend of Judge Monks, who was here in August last. We also note the arrival of Mr. H. P. Allen, the manager of the Biscuit and Confectionery Co., of London, Ont.

The Nurses' Department expects a celebrated magician from India, to assist them in their entertainment in the gymnasium on Saturday evening next. He is the famous Doctor Rajjidoschier, and it is expected that he will install his wonderful transmigration box, with which he will perform some of the wonderful feats which have made him famous.

Rev. H. C. Morrison, president of Asbury College, at Wilmore, Ky., and editor of the *Pentecostal Herald*, has arrived at the Sanitarium for treatment. His discourse on Sabbath morning in the Sanitarium chapel was much enjoyed, his subject being the achievements of the Gospel, from the text: "He shall see of the travail of his soul and shall be satisfied."

On Wednesday afternoon Mr. and Mrs. W. J. Smith, of this city, were host and hostess at a luncheon given in the Sanitarium dining hall to Mesdames J. Alden Smith and Ben Hanchett, of Grand Rapids, the former lady being wife of U. S. Senator Smith, representing Michigan at Washington. Several ladies from the city partici-

pated in the luncheon, which was heartily enjoyed by all.

Among recent arrivals at the Sanitarium we notice the following: Mr. H. Phelps Reed, a prominent broker of California and son of Dr. Bordman Reed, of Alhambra, a former patient at the Sanitarium; Mr. J. H. Evans, a well-known gas and oil producer of Tulsa, Okla.; Mr. Emile R. Soullier, of Switzerland, who is making his first visit here; Mr. J. O. Hamilton, of Muskogee, Okla., who is connected with the Midland Valley Railroad.

Miss Bovee, the physical director of the ladies' classes in the gymnasium, reports a growing interest on the part of lady patients in the work, which is specially designed for their benefit. One class meets at 11:45 and takes up special work for about twenty-five minutes. A general class also takes chest gymnastics at 2 p. m. each day under Miss Bovee. A special class for women under the direction of Professor Schatzel is also held each day from 3 to 4 p. m.

A cable message received from Edinburgh, Scotland, announces that Dr. John F. Morse,

of the Sanitarium medical staff, has satisfactorily passed, at the first attempt, the medical examinations there, and has received the "triple qualification" in medicine and surgery granted by the Royal College of Physicians and the Royal College of Surgeons of Edinburgh, and the Faculty of Physicians and Surgeons of Glasgow. Dr. Jean Whitney-Morse, who joined her husband in Edinburgh after taking obstetrical post-graduate work at the Rotunda Hospital in Dublin, will accompany him on a visit to medical centers on the Continent.

The social committee of the Sanitarium Christian Endeavor Society undertook the task of furnishing the Sanitarium helpers with suitable entertainment on Hallowe'en, and accomplished the task quite to the satisfaction of the young folks, a large number of whom were in attendance. The party met in the West Hall dining room. The room was appropriately and tastefully decorated and the program of events was sufficiently weird to meet the demands of the occasion, and yet not at all rude or indecorous. A good time was had, and all felt that much credit belonged to the committee who had acted their part so well.

Battle Creek Sanitarium Periodicals

Three journals are published at the Battle Creek Sanitarium:

The Battle Creek Idea (Weekly)	\$1.00 per year
Good Health (Monthly)	1.50 " "
The Medical Missionary (Monthly)50 " "

These papers will be combined at the following prices:

Battle Creek Idea and Good Health	\$1.85 per year
Battle Creek Idea and Medical Missionary	1.20 " "
Good Health and Medical Missionary	1.35 " "
All three journals one year	2.10 " "

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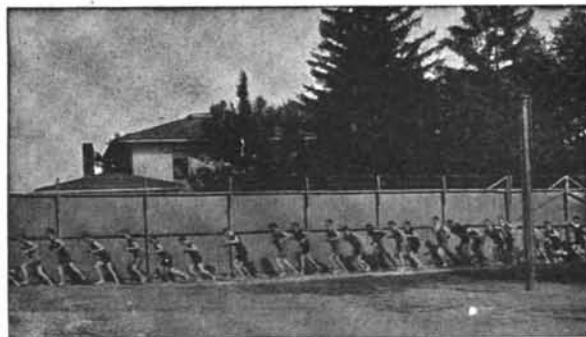
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THE BATTLE CREEK IDEA



Vol. III No. 49

BATTLE CREEK, MICH., NOVEMBER 11, 1910

Price 2 Cents

Question Box Is Opened

Doctor Kellogg Provides a Box in Which Queries May be Placed—Questions Are Taken Out and Answered Each Monday Evening

Q. Are the lactic acid bacilli destroyed by the saliva if the buttermilk is thoroughly fletcherized?

A. No, they flourish in the saliva.

Q. Is there an antitoxic element in fruits?

A. Yes, the acids of fruits will destroy nearly all disease-producing germs when in a pure state. Lemon juice will kill typhoid germs in a few minutes.

(Continued on page five)

Exercise and Health

The Want of Proper Exercise is an Active Source of Disease—How Exercise is Utilized in Sanitarium Therapeutics

WE are telling no secrets when we inform the public that by far the greater number of those who come to the Battle Creek Sanitarium for treatment are the victims of their own habits, which generally include want of proper physical exercise. The people who fail in health simply because of overwork are very few. The human frame is exceedingly delicate and frail in many respects; there is but a step between us and death at any time,

(Continued on page three)

We are a Dying Race

Abstract of Address Delivered at Beaumont, Texas, October 16, 1910, by Dr. J. H. Kellogg

STUDENTS of eugenics and statisticians no longer deny that the race is declining at a rapid rate. The evidences are numerous. By eliminating cholera, yellow fever, and other great epidemic maladies, we are keeping alive the unfit, who by intermarriage impair the integrity of the race. We have learned how to keep our feeble infants alive, though we often kill them by slow torture through wrong feeding later. By this means we are increasing the average longevity, and so de-



FROM SANITARIUM ROOF, LOOKING NORTHEAST

ceive ourselves into the idea that the race is improving, because the average length of life is increasing. The real measure of the vitality of the race is the number of centenarians rather than the average longevity.

Old Age is Going Out of Fashion.

The more civilized a nation, the less the number of centenarians. Germany with a population of 55,000,000 has only eighty centenarians, or one in 700,000. England has one in 200,000; France, one in 190,000; Spain, one in 44,000; Roumania, one in 6,000; Hungary, one in 1,000; the United States, one in 25,000. We have only 3,600 centenarians in a population of 90,000,000; whereas, if we were as healthy as the Hungarians, we should have 90,000 persons living one hundred years old or over. We are cultivating disease and degeneracy instead of health and long life. Doctor Hyslop, of England, an eminent medical authority, declares that civilization has perverted us to such a degree and removed us so far away from our natural environment and habits of life that race decay and ultimate extinction are inevitable unless a radical reform can be secured. We have greatly lessened the mortality from acute diseases, and so increased the average length of life; but within thirty years, as shown by Mr. Rittenhouse, president of the Provident Savings Life Assurance Society, the mortality from chronic disease has doubled. Bright's disease kills now 231 persons where it killed 100 persons in the same number of population thirty years ago. Apoplexy and other chronic maladies are all increasing. Half of the 1,500,000 people who die annually in the United States die from chronic disease. Three hundred and seventy-five thousand of these deaths would not have occurred thirty years ago. The annual loss from preventable disease and sickness is not less than three billion dollars.

Forty million a year is the world's death-rate—one life a second—a daily funeral train 5,000 miles long. One hundred thousand people will die to-morrow—an army of corpses large enough to people a large city. And the real awfulness of this is that half of these need not die, possibly nine-tenths of them might be saved. Ignorance, neglect, wrong habits, pernicious fashions, a thousand preventable causes, all work together to accomplish this terrible slaughter.

According to the Report of Statistics

gathered by the United States Census Bureau, there has been an increase during the last seven years of

Cancer	28%
Apoplexy	35%
Kidney diseases	41%
Diabetes	80%

In the United States the number of persons constantly suffering from tuberculosis reaches 500,000.

Dr. Prince A. Morrow says that the number of syphilis in the United States is probably 2,000,000.

In the decade 1851-1860 the total number of deaths from diabetes in England was 4,546, giving an annual average of 454, while in the year 1907 the annual average reached 3,360, an increase of 750 per cent.

Cancer is increasing at a still greater rate

—500 per cent in 60 years. At the present time one person in every twenty living in the United States dies of cancer. Every eighth adult woman is doomed to die of cancer. Doctor Williams, of England, has shown that cancer is almost entirely confined to the meat-eating races of man and animals. While 5 per cent of human beings die from cancer, 8 per cent of dogs and 7 per cent of cats suffer from it, being more carnivorous in their habits than human beings are. Horses, sheep and other vegetable-eating animals are almost entirely free from cancer. Cancer is unknown in Central Africa, where the natives eat little or no meat. The same is true in Ceylon and other rice-eating countries.

Insanity Has Increased 300 Per Cent

in fifty years. Fifty years ago the proportion of insane to the sane was 600 to the million. At the present time, the proportion is 1,800 to the million. Idiots and imbeciles are equal in number, making the present number of idiots and insane 3,400 to the million. In the State of New York the insane and idiots already equal 6,000 to the million, and New York makes 5,300 new lunatics every year, or more than 600 to the million. If insanity continues to increase in the United States at the present rate, in less than 300 years the whole population will consist of idiots and lunatics. Dr. Forbes Winslow, of England, the eminent alienist, recently made the declaration that the whole world is certain to become mad unless there is some radical change in the present tendency.

The Expectancy of Life Has Diminished.

According to Mr. Rittenhouse, president of the Provident Savings Life Assurance Society of New York, while the average length of life has increased, the expectancy of life after forty has diminished greatly within the last thirty years. Between forty and fifty the mortality has increased 35 per cent; between fifty and sixty, 22 per cent; between sixty and seventy years, 34 per cent. Degeneracy shows itself by defects in school children. In Scotland, 70 per cent of the children were found to show defects of some sort. In New York City, of 1,500 school children examined in three schools, 93 per cent were found defective. In Germany 54 per cent of the young men examined for army service were found physically fit. The increase in suicide is another evidence of physical degeneracy.

According to the New York *Tribune* of November 4, 1909, the rate of suicide per 100,000 population for 1908 was 21.8—the highest ever recorded—and just three suicides to the 100,000 more than in 1907. In 1908 the number of suicides was 4,367, an increase of 16 per cent—a rate five times as great as the increase of population. Mr. Hoffman, who calls attention to these facts in the *Tribune*, remarks that in this increase of suicide, which occurs most frequently among the educated and the prosperous, "there is positive evidence of mental and physical deterioration."

There are 10,000 murders in the United States annually, twice as many as in India in proportion to the population. Criminals of all classes are increasing faster than the population.

The Birth-rate is Diminishing,

having fallen off 30 per cent in twenty-five years. We are going down hill very fast. It is time we turned about. We should no longer deceive ourselves by the fact that the average length of life has increased. Statistics will soon show a decrease, because of the rapid increase in the mortality from chronic disease. We catch smallpox and typhoid fever, but rheumatism we swallow at the dinner table. Bright's disease we cultivate by the use of tea, coffee, tobacco, alcohol and a high-protein diet, that is, excessive meat-eating. We are laboring under the delusion that to be strong we must eat a strong animal, or at least eat the muscles of an animal. This is a cannibalistic notion, like that of the South Sea Islander, who ate his enemy when he slew him, so that he might become possessed of his courage.

When a farmer told Thoreau, the author of "Walden," that his bones would soften if he did not eat meat, the philosopher called the farmer's attention to the fact that he was being jerked along behind his plow by oxen whose bones were made from grass and corn.

Science Has Since Shown

through the experiments of Professor Bunge and Doctor Sherman, of Columbia College, New York, that half the people of the United States are suffering from lime starvation because of their use of meat. A kernel of corn contains all the elements necessary for complete nutrition—protein for the muscles, starch and oil for the fatty tissues, and lime for the bones. When a hog eats the corn, the various elements are distributed where they are needed. The gluten goes to the muscles, the oil and starch to the fat, and the lime goes to the bones. When a man eats the hog, he eats only the fat and the lean meat, leaving the bones behind, and thus he loses the lime; so if one is going to eat his corn at second-hand, in order to get the whole corn back he must eat the bone along with the bacon.

When a hog eats another hog or any other dead animal, his flesh acquires a loathsome flavor, he becomes diseased, he is a chronic invalid, or at least a valetudinarian. Nobody likes the taste of the flesh of a hog that has been fattened on meat. When human beings eat flesh, the effect upon the tissues is the same. The more largely the meat enters into the diet, the worse the effects. Flesh is not a natural diet for human beings. We are naturally fruit and nut eaters like the orang and the chimpanzee. The dinner bill of fare for the chimpanzees at the London Zoological Garden is lettuce, oranges, bananas and bread. This is just the bill of fare which the Almighty prescribed for man (see Genesis 1:29): "Every fruit tree bearing fruit and every herb bearing seed, to you it shall be for meat."

Fruits, Nuts and Grains Are the Original Meat.

Flesh-eating is a species of cannibalism which we tolerate only because the old savage who roamed the forests of Great Britain clad in war paint and feasting on his enemies still leaps and yells in our hearts. Three-quarters of the human race still adhere to the original bill of fare and subsist on fruits, grains, nuts and fresh vegetables.

(Continued next week)

Original from

UNIVERSITY OF MICHIGAN

EXERCISE AND HEALTH

(Continued from page one)

and yet it is surprising beyond measure to observe of what the body is really capable when it is properly cared for and when its labors are properly adjusted.

More and more the world is seeking sedentary employments. The man who can sit in a soft chair and earn a big salary is considered very fortunate as compared with the man who has to hustle about in the open air for a living, but the great mass of invalids come from the classes who sit in easy chairs. Sitting in an easy chair to do one's life work, eating heavy, indigestible food, and keeping unseasonable hours, will overturn any constitution less stable than that of a wooden Indian. And these are the particulars that enter largely into the lives of many who have made invalids of themselves. The body is to be used. The muscles must be given something to do, the blood must be called upon to sustain continued energetic effort, the nervous system must be given an active body to manage—muscles, bones, blood, and organs that are doing things every day, and a good many of them, too. The want of this activity is without doubt a prominent cause of the premature breakdown of many people in professional life and sedentary employments.

The first thing, therefore, that the Sanitarium physician looks after in behalf of his patient is that he sets these long unused muscles and bones to work. Exercise enters as an element into the treatment of all patients except those who are already past the point where it is possible to take or receive it.

Exercise is Voluntary or Involuntary;

that is, certain forms of exercise are prescribed which the patient takes for himself—he is the active party in the performance of this work; and there are other forms of exercise in which the patient is passive, and the exercise is administered to him by an attendant or nurse. The former includes walking, running, swimming, and general gymnasium work. This includes marching, club-swinging exercises of the limbs and bodily muscles and breathing exercises. Games are introduced to encourage this development of the muscles, swimming pools for summer and winter are provided, walking parties are sent out under competent leaders, and every pains is taken to induce people to take up real active work in their own behalf.

The daily program of the Sanitarium provides liberally for physical exercise and development. There are breathing exercises before breakfast, in which all who are able to be about are invited to join. When it is practicable, these are held out of doors, and the place chosen is the front walk or approach to the main building. Our illustration shows one of the interesting exercises in operation. Then at nine o'clock in the morning the big gymnasium is opened, and under a competent teacher a series of exercises calculated to develop the muscles and expand the chest and set the blood to coursing through the veins are given. These include among other things walking and marching, wand drills, club-swinging, etc. At two o'clock walking parties sally out into the surrounding country.

These walks are very pleasant and inspiring. They afford good opportunity for social intercourse and forming acquaintances, as well as affording strength, life, and power to the system. At four o'clock exercises are again taken in the gymnasium, and after the supper the gymnasium again becomes the scene of interesting activities for forty minutes, the rest of the evening being given to social privileges and lectures.

The class of involuntary exercises includes mechanical and manual Swedish movements and massage. The mechanical Swedish laboratory presents an entertaining spectacle when in full operation, as it is during the forenoon hours, and for some time in the afternoon. Here, nature has the assistance of mechanical contrivances in producing necessary exercise of tissues and organs. Here are tables upon which the patients lie face downward. The tables move backward and forward over a set of slowly revolving cams or eccentrics that have kneaders on the ends of their arms. These knead the stomach and bowels very effectively and serve to strengthen

There are other contrivances too numerous for description here. The object of this busy department is to make up as far as possible in a few weeks the neglects of years, and supply the exercises that were not taken when they should have been, and for the want of which the body is now in trouble. The substitute is not equal to the thing itself, but is the next best thing and really does wonders for people.

Manual Department

In the manual Swedish department the operator imparts to his patients the motions or movements that are required to counteract the effects of the lack of exercise of years gone past. Some of these exercises the patient is soon able to take for himself as he increases in strength. Others are of a nature that require the assistance of the attendant. These treatments almost invariably have an object in the mind of the physician who prescribes them that is behind the mere cultivation of the muscles. The strengthening of the muscles, the activity of those parts of the



BREATHING EXERCISES ON FRONT WALK

the abdominal muscles and promote peristaltic action of the bowels and motility of the stomach and other organs of digestion. Another table is arranged to knead the back, the motion not being so pronounced as it is in the others. Various machines, driven rapidly by electric motors, serve as vibrators, imparting to the body and various parts of the body rapid vibratory motions that act upon muscles and nerves and serve to accelerate the flow of the blood. There is a series of machines having crank-wheels which work alternately, with wide straps attached at each end to the cranks. The strap is placed across the abdomen of the patient as he stands and leans against the strap which, being set in motion by the cranks, imparts a gentle movement to the abdominal organs, swaying them backward and forward alternately. Here is an upright shaft which revolves, having a wide leather strap attached to it; the strap slides up and down the shaft as may be desired. The ends of the strap come in contact with the legs and body in a manner that reminds one of certain experiences with his mother in days gone by.

body, mean much to the individual in the correction and promotion of all the vital functions of the body.

Massage is the manipulation of the muscles of the body by the hands of an operator. In this as in the mechanical and manual Swedish departments, the patient is passive in the hands of his attendant. Massage is intended to correct not only muscular action or inaction, but it acts directly upon the nervous system, and indeed upon all the vital activities of the body. And this is true of the entire system of exercise, artificial or natural. Naturally the thought comes to a disinterested observer that it would be to the advantage of most people if they would take their exercise at home, and as it is needed, instead of allowing themselves to get so deeply in debt to nature on the score of exercise that they have to come here and spend weeks making up lost time at considerable expense and trouble to themselves. With the taking of proper physical exercise on the part of all people, there would be a very great reduction in the vast army of invalids that are now suffering the dire results of their neglect.

The Battle Creek Idea

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STRANGE TACTICS

THE struggle with the liquor interests is not yet over in Calhoun county, though we did gain a victory a year ago last spring. The liquor men are going to improve the very first chance to renew the fight at the polls, and next spring will see the question of license in Battle Creek and the county again up for decision. We shall have enjoyed two years of comparative peace and cleanliness. The saloons have all been closed, the authorities have honestly tried to enforce the law, and although the new order of things has not had sufficient time to fully demonstrate what it is worth to the community, we have seen enough to convince any fair-minded man that the selling and drinking of beer and whiskey is of no value to a community, but is a positive detriment to business as well as to morals.

We trust that our people will have seen enough of these benefits, and will be so well able to strike a clear balance between whiskey and no-whiskey as to bury the infamous traffic so deeply down that it will not be able to raise its head in this city again. The low and filthy portions of our city, in which it was hardly seemly for a respectable person to pass along, have been wonderfully transformed and cleaned up. Respectability is in evidence, and thrift and industry now fill the places of vice and idleness.

It is interesting to notice the arguments sent forth in great numbers by the "Manufacturers and Dealers' Association," and other organizations whose object it is to foster and uphold the liquor traffic. The principal burden of these arguments is to show that local option, prohibition, no-license, high-license, and any other temperance measure all serve to increase rather than diminish the use of drinks. They claim that there is more drunkenness in Battle Creek, and more liquor sold here than in the days of the open saloon. They advance the same claims for every place where the experiment of closing saloons and preventing the sale of liquors is being tried. Now, if that is really the case, if prohibition actually increases their trade, and the number of their victims, if there is

an increase of crime, and a larger number of arrests in "dry" territory than in "wet," then why should the whiskey dealers and makers so violently oppose such measures? Why not encourage them in every possible way?

We do not admit that their claims are true; in the very nature of the case they could not be true. Drunkenness becomes more prominent in prohibition territory, and the police quickly seize a man who is seen intoxicated, for they know there has been a violation of the law.

In days when the saloon was unchecked, a man could stagger through the streets, but as long as he was civil in his behavior he was unmolested. But now the police are on the alert for such cases. Murders and robberies take place in spite of the laws against them, but no one would claim that making murder and robbery crimes by law serves to increase them; if so, then no one would say abolish the law. The law ought to speak against every form of crime and wrongdoing in which human rights are at stake, and because a law can not be enforced is no good reason for repealing it, but is a good reason for strengthening the executive department of our government. The very fact that these men associate arrests, drunkenness and crimes with the traffic for which they are contending, shows that in defending the traffic they are pleading for the prevalence of all the awful consequences which follow in its wake, and wittingly doing so.

FALL RIVER'S FAME

VARIOUS cities have their grievances over the census reports for different reasons, but Fall River, Mass., has a real one in the fact that the census shows the death-rate to be higher there than in any other city in the Union except New Orleans, which bases its undesirable notoriety on the fact that it has a very large negro population, who live in the most unsanitary ways, and die off rapidly as the result. Fall River protested against this bad showing of 19.1 deaths per thousand per annum. The protest was backed up by statistics showing that the government's data were not reliable, and the figures were too high. Census Director Durand issued a statement in reply showing that the government was absolutely correct, according to State reports. After pointing out the error of the city in its figures, the statement goes on to say:

There is no special reason why Fall River should show a higher mortality than other cities; indeed it has special advantages which should lead to a low death-rate. The excessive mortality is due largely to the great number of deaths of infants and children during the early years of life. The proportion of deaths of infants under one year to total deaths for Fall River was thirty-nine

per cent, and under five years of age was fifty per cent. That is to say, half of the deaths returned are of children under five years of age. The relative proportions in all cities of the registration States taken together are twenty and twenty-nine per cent, respectively. The proportion of deaths of children under five years (fifty per cent) in Fall River is far greater than that of any other large city in the United States, and is nearly as great as that of the Filipino population of Manila, which was 64.9 per cent for 1909.

Just what the occasion for this sad pre-eminence is the census man does not undertake to point out, but surely it is a matter which the local authorities can not pass by. The slaughter of the innocents in Bethlehem bears no comparison to this awful mortality of little ones in one of our enlightened and most substantial communities. It will be well to ascertain, for instance, whether the women of Fall River are qualified mothers. Should a woman who can not or will not care for her offspring bear children? Bringing up children by proxy with a hired girl for a caretaker, and a bottle for a mother, is a greater outrage on humanity than an incubator is on the poor motherless chicks that never know a mother's wing. The process of artificial incubation is made a matter of thorough study, and with the best of results there is a great mortality in the prospective broods. Nobody counts his chickens until they are well grown. And the artificial culture of babies will never succeed any better.

"IN OTHER LANDS"

THE Christian Endeavor meeting of last Friday was one of unusual interest. The topic for the evening was, "In Other Lands," and the presence of so many missionaries as patients at the Sanitarium enabled the missionary committee of the Society to represent it in a very realistic way.

The leader of the meeting, Dr. W. F. Martin, in a few well-chosen remarks struck the keynote of the evening when he stated that the object of the exhibition was not to make a show or merely to produce entertainment, but rather by familiarizing the people with life in those distant and needy lands, to create a real interest in their physical and spiritual uplift. He then introduced Rev. Walter E. Hiatt, who was dressed in the girl, dressed in the Chin costume.

The Caroline Islands were then represented by Mrs. Gray, who spent several years there in mission work. She was dressed in the dainty dress of the islands, and with flowing hair and flower wreaths gave a peculiar note of interest to the islands about which she spoke.

Mrs. Joseph Clark, of the Congo, was then called to the platform to represent that region. She was dressed in the "very best" clothing worn by the native Christians of her country, which was only a printed cotton of simple style. Mrs. Clark then introduced her son Harold, who was born in the

country, and who was dressed as an African warrior.

India was then called to the platform in the person of Mrs. I. L. Stone, who spent many years in missionary work in that country. She represented a Bible woman of that country, and as she and her pupil took their seats on the platform, it was very interesting to see the look of wonder on the face of the little Indian draped lassie as the "old, old story" was read in the native tongue and explained by the teacher.

China was next called, when Miss Gena Anderson told the story of a Chinese mother and the dreadful sorrows caused by the practice of infanticide. Another picture of China was given by Mrs. H. L. Canright, who as a missionary of that country received a visit from a Chinese lady. This lady was Mrs. Canright's own little girl, who hobbled on to the platform leaning on the shoulder of her Chinese servant.

Porto Rico was then represented by Rev. A. H. Leo, who brought to the platform a little Porto Rican girl, and after a few remarks upon the country Mr. Leo and the little girl sang a duet in the native language.

The audience was then transported to Japan. Miss Eva Rolman made a call upon Tatsuma Kuma San, a Samari woman of the learned class of Japan. It was most interesting to see these ladies go through the ceremonious greetings peculiar to the nation. During the call, the inevitable tea was served and partaken of in true Japanese manner, and then the missionary lady drew out her Bible and the lesson was read, and a duet sung by visitor and hostess.

Turkey was next represented by Miss Bushnell, who was accompanied by Miss Glenny. These ladies, as an Armenian mother and bride, gave one a realistic conception of the peculiar customs of the country.

A profound impression was created when Mr. Adrounie, dressed as a Turkish student, repeated the Lord's prayer in his native tongue.

Mexico was next called to the platform, and was most happily represented by three young ladies of Mexico, who are in training in the nurses' department of the Sanitarium. One of them in a few well-chosen words told some interesting details of Mexico, and another sang, "Oh! Cristo mio."

The last country to be called was Assam. Rev. and Mrs. William Dring, in the white robes of their country, seemed to make that far-away land very near to their audience. After a few words by Mr. Dring, they repeated in unison in the native Garo language John 3:16, and sang a duet.

The chairman then asked the natives of these countries to assemble on the platform, and as they faced the audience in their picturesque coloring and quaint attire, the organ pealed out the hymn, "Blest be the Tie that binds our hearts in Christian love." As the grand words of that hymn gathered volume verse by verse, while sung by natives and people of the dear home-land, it was strikingly suggestive of that great gathering seen in vision by one who said, "These are they who have come out of every kindred and tongue and nation and have washed their robes and made them white in the blood of the Lamb."

Before the closing prayer, the chairman

stated that the Sanitarium Christian Endeavor Society was already supporting a nurse in a hospital in India, and was maintaining two cots in a children's ward. He expressed the hope that before long they might have their Society represented in every country from which they had been privileged to hear that evening.

The subject for next Friday is, "Secrets of Happiness," Job. 5:17, and Proverbs 3:13-18. It is the monthly consecration meeting, and Dr. Francis E. Clark, founder and president of the Christian Endeavor movement, is expected to be present. A cordial invitation is extended to all.

QUESTION BOX IS OPENED

(Continued from page one)

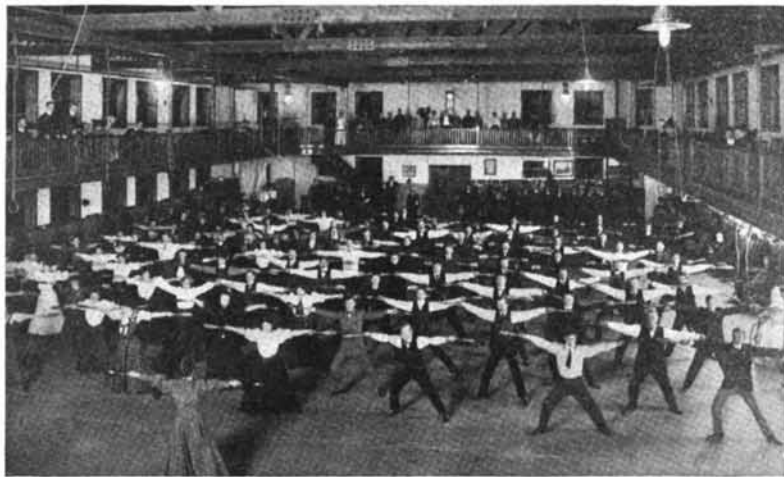
Q. What causes gases on the stomach? Do they come from the fermentation of food?

A. No; gases on the stomach really are very rarely due to fermentation of the food. Of course, gases are formed by fermenta-

the extracts of meat have greater power to stimulate the stomach than any other substances; and that they cause the stomach to make an exceedingly acid gastric juice; so when one has an acid stomach he should not eat meat. It is true that eating meat relieves it, because the meat neutralizes the acid, so that temporarily he is relieved just the same as when he takes soda; but he is in the end damaged by the use of the meat because it over-stimulates the glands still further. The very same thing is true of baking powders, soda, saleratus,—all these have the effect when used first to over-excite the stomach, and afterward, by wearing the stomach out, to produce the very opposite condition. Water drinking, in large quantity, causes the stomach to pour out acid. Pawlow has shown that also.

Q. Is it injurious to drink water or other beverages at meals?

A. No; but of course one should not deluge his stomach. It is all right to take a little water if one is thirsty. I recently saw



CLUB EXERCISE IN GYMNASIUM

tion in the intestines, and it is the food which ferments; but it is a matter of diseased conditions. The stomach forms too much acid. The acid closes up the pylorus so that the gases which are present there can not escape downward into the intestine as they should, as the stomach is working, trying to force the foodstuffs out through the pylorus, the gases are forced upward. Sometimes liquid is eructed along with the gas, or some portion of foodstuff; the acid liquids from the stomach are usually forced back; then the person thinks there is fermentation in his stomach; but it is really hyper-secretion of acid, and this excessive secretion of acid is usually due to either flesh-eating, to copious water drinking at meals, to neglect to thoroughly masticate the food, to the use of condiments, or to auto-intoxication.

Those are the great causes of hyperacidity. Neglect to chew the food thoroughly causes the food to stay in the stomach too long, and the stomach glands are over-stimulated. Flesh food has the effect to stimulate the stomach to secrete acids. Pawlow, the great St. Petersburg physiologist, showed that meat and

a gentleman swallow four large glassfuls of iced water and two large glassfuls of iced grape-juice, making six glasses in all, at a single meal, and he ate a large dinner besides. I suspect he will be breaking down one of these days with apoplexy, and people will wonder why it happened to him.

Q. What causes obesity?

A. Too many calories and too little exercise. Here is a train of cars going over the line, and it stops at each station and takes on coal. Suppose it takes on at each station more coal than it has burned; by and by the tender will be full and it will overflow into the baggage car, then into the smoking car, then into the day coach, and finally the Pullman coaches will be full of coal. The whole train will be full of coal; and then that train is obese. Mealtime is the station where we take on fuel, and if we take on more fuel than we used since the last meal, we are adding to our body weight. The cure for that condition is to take on at each meal a little less food than we have consumed since the last meal, and by and by the body will

be reduced to its normal condition. The body loses its fat by consuming the residual tissue of the body when we are taking less food than we are really using.

Q. Ought one to drink liquid in small quantities or large quantities?

A. Always drink in small quantities. If we take a large quantity of liquid it is poured into the blood very quickly, and the vessels are distended, and can not properly take care of so much liquid at one time, so they pour it out, and deplete the blood; but by taking a little water at a time, one can gradually accumulate a large amount of water. Half a glassful is enough to take at one time. A little sip of cold water at meals will not do any harm; it is the taking of a large quantity that does harm.

Q. Please explain the cause and cure of acne?

A. Acne is due to autointoxication,—poisons absorbed from the colon are excreted by the skin and irritate the skin glands, and the skin glands lose their power to resist the germs on the skin, and these germs work down into the skin glands and produce poisons that set up irritation; then suppuration occurs, and that is acne. The cure will not be found in lotions; they will give temporary relief, by killing the germs that are present there, but the real cure comes from the antitoxic diet and a normal life.

Q. Would you consider the movement of the bowels at long intervals as the result of fletcherism to be normal?

A. I am perfectly frank to tell you that the idea that fletcherism will lead to a condition of the bowels in which they will move only once a week is entirely a mistake. Mr. Fletcher does not believe that to-day. He is, I think, fully persuaded that the rhythmic activity of the bowels, moving every day, or after each meal, is normal and proper, and that nothing should be permitted to interfere with it.

Q. Since coarse food and cellulose are beneficial to relax the bowels, why not swallow the residue of coarse vegetables, instead of colax?

A. The residue of coarse vegetables does not have the properties of colax. However, it is a good thing for some people to eat coarse vegetables, as lettuce, turnips, carrots, and parsnips, which, when well chewed, are entirely wholesome except for people who have specially irritable or dilated stomachs. Dilated stomachs can not contract and carry out this residue, and it is very bad on that account for them to eat; but for the average person with a normal stomach this bulky material is necessary and wholesome. The bran of wheat, and even whole wheat cooked, may be eaten with advantage; and green wheat may be eaten raw. There is no objection to the use of these coarse substances, but they are not quite equal to colax for the reason that they are not so hygroscopic. Colax has the property of absorbing seven times its weight of water, and that makes bulk, and it absorbs the poisons which are in solution in the intestine, the intestine acts upon this mass and carries it away; it gathers up a large amount of putrefactive bacteria and carries them away.

Q. Is it advisable to swallow the seeds of cherries, dates, etc.?

A. No; they are not a good thing to swallow.

The "International Limited"

ONE of the most artistic folders issued by the Grand Trunk is a brochure just out giving information regarding the "International Limited," which is heralded as Canada's fastest train, as well as its finest. The booklet is prepared in most attractive style, well printed and illustrated, while the esthetic relation of type and illustrations is maintained to a notable degree. The story of the "International Limited" is a familiar one to Canadian, as well as American, travelers, but, as shown in the latest publication of the Company, it is still not merely interesting, but attractive. A full description of this train between Montreal and Chicago is given, together with all the information regarding time and accommodation, that any passenger could require, the whole tastefully put together and artistically illustrated. A copy may be had free on application.

L. J. BUSH, Pass'r Agent,
Battle Creek, Mich.

ARRIVALS

THE following is the list of guests who registered at the Battle Creek Sanitarium for the week ending November 6: J. D. Metzger, Ill.; Mrs. J. W. Walton, Sr., and Mrs. J. W. Walton, Jr., Ill.; E. H. Sebring and wife, O.; S. R. Marks and Mrs. Marks, Mich.; W. J. Masten, Ind.; John H. Masten, Mich.; F. H. Routier, N. Dak.; Mr. and

Mrs. B. W. Davis, Wis.; W. A. Nirling and Lyman, Mich.; Miss Susie F. Hill, Ill.; H. M. Larabee, Mich.; Mrs. H. Whitmore and Mrs. L. A. Studebaker, Ind.; J. A. Kepner, Cleveland; W. F. Pohlman, Buffalo; Dr. Francis E. Clark, Boston; Mrs. H. W. Hawley, Mich.; Theresa E. Bock, N. Y.; Mrs. J. L. Weill Ruson, Tenn.; L. A. Banta, Ind.; Y. B. Kuresky and wife, New York City; Wm. F. Holzemer, Mich.; R. D. Palmer and E. M. Bryant, O.; Mrs. B. Pindlee and Mrs. H. M. Hendley, Mo.; Mrs. H. C. Barnart, Ill.; Jacob Fisher and Mrs. Fisher, Ind.; Edw. Ryan, Master Edw. Ryan, Jr., Detroit; Richard Wyehe, New York City; Mrs. Ida Stewart, Ia.; Allen M. Robinson, Neb.; G. G. Hutton, Chicago; M. Hughard, Jr.; H. Imhof and Tillie Imhof, Chicago; W. R. Vester, City; Jay Wilcox, Mich.; Miss Fannie Tappan, W. Va.; Mrs. Albert Wenzlick, St. Louis; Mrs. R. M. Edwards, Mich.; Mrs. H. B. Williams, Chicago; Rev. A. H. Viner, Mich.; Dr. J. F. Dairdanof and wife, and Mrs. D. W. Gerbad, Ind.; Albert B. Lord, Wash.; Della Thompson Lutes, N. Y.; Mrs. D. M. Compton, Chicago; Mrs. C. S. Anderson, Tex.; Clarence A. Shamel, Chicago; J. Y. Shamel, M. D., Ill.; T. H. Main and family, Chicago; Paul H. Uber, Mich.; Mrs. Stephen G. Holbert, Chicago; M. H. Eichberg, Baltimore; Mr. and Mrs. S. R. Seward, N. Y.; Emily May Ely, Mich.; Mary A. Fowler, N. Y.; Mrs. W. A. Nirling, Mich.; M. I. O'Brien, Pa.; Adele K. Ackerman, Chicago; Mr. and Mrs. H. A. Keipp, Boston; P. H. Dillmott, N. Y.; Callie O. Gray, Mass.; R. R. McLaughlin, Minneapolis; Mr. and Mrs. P. M. Hair and Mr. and Mrs. Grant Ridgway, Chicago; Mrs. E. Bord and daughter, Mich.; P. F. Buckley, Chicago; Emily C. Mead, City; Elizabeth E. Martin, Ind.; M. Masters, E. A. Blanton, Jr., Philadelphia; Mrs. G. M. Ely, Mich.; Mrs. C. Sweeney,

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Chicago; Mrs. B. J. Bogue, Ind.; Mrs. P. C. Knapp, Detroit; Mrs. C. H. Mann, Mich.; Jno. G. Smith and Mrs. W. Z. Stuart, Chicago; Mrs. Nathan Paine, Wis.; W. T. Leonard and wife, N. Y.; J. H. Horbison, Philadelphia; John and H. Stevenson, W. Va.; Frank McCollister, Ill.; Mrs. J. Kahn, Detroit; Henry Furst, Jr., Chicago; Frank Brown, Okla.; P. R. Voil and A. Pokkala, Minn.; Mrs. A. W. Smith, O.; John C. Horner, Ill.; Robt. I. Fulton, O.; F. W. Thompson, Chicago; Thos. M. McIntyre, Pa.; J. W. Walton, Jr., Ill.; W. H. Hines, Chicago; Fred H. Higgins, Mich.; S. S. McClure, New York City; Mrs. T. B. Chapman, O.; F. E. Belden, City; W. L. Sloper, Conn.; Russell Barnes, B. J. Barnes, Mrs. D. O. Jonshnan and Minnie F. Hall, Chicago; Mrs. C. A. Grinnell and Miss Lola Grinnell, Detroit; J. E. Wooley, Calif.; V. E. Bemis and wife, N. Dak.; J. H. Beckham, Mo.; Mrs. Foster B. Brown and Miss Yorke, Tenn.; Mrs. H. L. Blossom and Miss Louise Blossom, Cleveland.

News and Personals

Mr. S. S. McClure, the well-known publisher and editor of *McClure's Magazine*, has returned for a brief visit.

On Monday Dr. E. G. Lewis, the newly appointed pastor of the Maple Street Methodist church of this city, accompanied by his wife, visited the institution and took dinner.

Mr. R. K. Wyche, of New York City, President of the American Story Tellers' Association, has returned to the Sanitarium for a short period of rest and recuperation.

The bookstand in the lobby has a good supply of 1911 calendars; and many new and interesting books for Christmas with New Year novelties will be placed on sale this week.

Mr. C. A. Shamel, of Chicago, who is engaged in literary work, is here for a course of treatment. He is a brother of Dr. J. Y. Shamel, who is a warm friend of the institution.

Mr. Henry Imhoff, with his sister, Miss Tilly Imhoff, are spending a few days in the Sanitarium in rest and recuperation. Mr.

Imhoff is a prominent mechanical engineer of Chicago.

Among former well-known friends of the Sanitarium we notice: Mr. Albert B. Lord, of Seattle, Washington; and Mr. I. O'Brien, of Sharon, Pa. These gentlemen have returned for a course of treatment.

Mr. and Mrs. Jacob Fisher, of Valparaiso, Ind., are returned patients; also Mrs. Nathan Paine, of Oshkosh, Wis., and her sister, Mrs. W. C. Stuart, of Chicago. These ladies are well known at the Sanitarium and always receive a warm welcome.

The Sanitarium received a visit during the past week from Dr. J. F. Davidson, of Crawfordsville, Ind., supreme medical officer of the Tribe of Ben Hur. Mrs. Davidson is a patient in the institution, and this fact was the occasion of the Doctor's visit.

THE BATTLE CREEK SANITARIUM AND HOSPITAL TRAINING SCHOOL FOR NURSES, BATTLE CREEK, MICHIGAN

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Among other special advantages offered are laboratory instruction in bacteriology and chemistry, the use of the microscope, urinary analysis, practical course in cookery and dietetics, medical gymnastics, swimming, anthropometry and open air methods. Applicants received whenever vacancies. The next class will be organized the first of October, 1910. For full information address

Sanitarium,

Battle Creek, Mich.

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LENNA F. COOPER, Director,
Battle Creek, Michigan.

Other recent arrivals are: Mr. J. C. Homer, a prominent expert surveyor and field engineer of Springfield, Ohio; Mr. Frank Brown, an ice manufacturer of Chickasha, Ark.; Senator P. R. Vail, State Senator of Minnesota, from Virginia, Minn.

Mrs. Foster V. Brown, from San Juan, Porto Rico, is taking a course of treatment at the Sanitarium. Mrs. Brown and her husband, the attorney general of Porto Rico, have been former patients here. Mrs. Brown expects to spend Christmas at her home in Chattanooga, Tenn.

Other arrivals are: Mr. W. F. Holzner, of Alma, Mich., a well-known business man; Mr. B. W. Davis, cashier of the National Bank of Waupum, Wis. Mr. F. W. Thurston, a prominent business man of Chicago, and a warm friend of the Sanitarium, has returned for a period of rest and recuperation.

The Sanitarium Christian Endeavor Society participated in a mass meeting of the Christian Endeavor Societies of the town which was held in the Presbyterian church on Sunday evening last. Dr. Francis E. Clark addressed the meeting, and the various pastors of the town took part in the service.

Rev. and Mrs. H. A. Niepp are making their first visit to the Sanitarium. They have just arrived from Benguela, Africa, where they have been serving as missionaries under the Congregational Board. We are also glad to welcome Rev. A. H. Viner, of Big Rapids, Mich., who has given long and faithful service in the Methodist ministry.

Dr. Henry Clay Morrison, of Kentucky, spoke at the service in the parlor on Sabbath afternoon to a large and deeply interested audience on the subject of his trip around the world to the various mission stations. The Sanitarium stenographer reported his discourse, so that our readers may possibly have the privilege of reading it in a near issue of the BATTLE CREEK IDEA.

The Social Hour of Wednesday last was a decided success. The Misses Meme Smith and Florence Walker presided at the piano, and Miss Farquharson gave some fine numbers on the violin. Short, bright stories of travel were told by Messrs. Simmons, Tenney, Leo, and Drs. Morrow and Morrison. The parlor was well filled by an appreciative audience.

Dr. Francis E. Clark, founder and president of the Christian Endeavor movement, is spending a short period of rest in the Sanitarium. Doctor Clark is perhaps more widely known throughout the world than any other clergyman. His Christian Endeavor societies have circled the globe, and thousands of people have gathered in the conventions of Japan and India, from whence he has recently returned. He has addressed the Sanitarium family on several occasions and has made a lasting impression upon the minds of our people by his genial and Christian kindness.

Another recent arrival at the Sanitarium is Mr. Henry D. Schoonmaker, a prominent

rancher and pioneer of Alcova, Wyoming. Mr. Schoonmaker is one of the few remaining pioneers in this country, as most of the pioneer territory has been transformed by the advance of agricultural enterprise. He is carrying on a successful ranch and is most enthusiastic over his work, in spite of the fact that he lives seventy miles from the nearest railroad station.

The Domestic Science Department is expecting the arrival of Mrs. A. M. Benton, of Rochester, N. Y., who will have charge of the class in sewing, one of the important features of the course. She is a lady of considerable experience in that particular line of work. Miss Grace Holwick has returned to assist in dietary work. Miss Leah Hubbard, a graduate nurse of the General Hospital in Portland, Maine, has returned to finish her course in the Domestic Science Department.

The entertainment on Saturday evening by the Nurses' Alumni was replete with good practical lessons, interspersed with wholesome diversion and merriment, much to the gratification of the patients who had completed a hard week's battle in the fight for health and were cheered by good wholesome

amusement. The music by the orchestra was exceptionally fine. The Joy Riders, with the support of the Roadside Farming Community, presented modern emergencies in a melodramatic manner which could not fail to be remembered. The violin solo by Miss Babcock was a pleasing number and well received. Miss Jackson sang "Annie Laurie," and responded to an *encore*. "Doctor Rabjdoshier" with his transformation box furnished variety and served to introduce some attractive numbers, among which was the excellent work of the cartoonist who with a few dashes of crayon presented a striking likeness of Doctor Kellogg to the surprised and amused audience; and the weird and attractive gypsy singer, with the impressive lighting effects of camp fire and full moon, very effectively arranged by the Sanitarium electrician. The final pantomime was presented by ten of the young lady nurses of the Sanitarium, who illustrated the words of a familiar sacred song by appropriate *delsarte* movements. The whole evening showed that the local talent of the Sanitarium family could provide an instructive and helpful entertainment, and their efforts were well received by an enthusiastic and appreciative audience.

Battle Creek Sanitarium Periodicals

Three journals are published at the Battle Creek Sanitarium:

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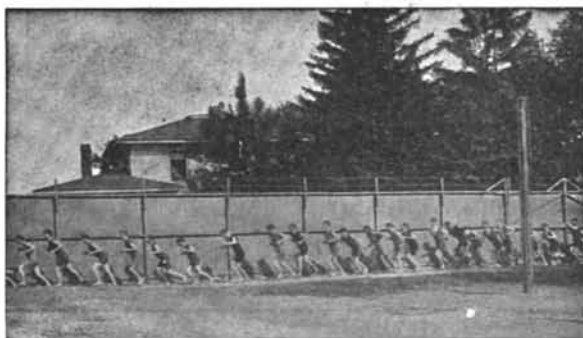
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THE BATTLE CREEK IDEA



Vol. III No. 50

BATTLE CREEK, MICH., NOVEMBER 18, 1910

Price 2 Cents

Tension and Relaxation

From a Lecture in the Sanitarium Parlor
by Wm. W. Hastings, Ph. D., Dean of
the Sanitarium Normal School
of Physical Education

THE purpose of this lecture is to demonstrate to you that muscular activity and relaxation, work and play, fatigue and sleep, are not diametrically opposed to each other,

How a Stranger Is Received

Becoming Acquainted with Sanitarium
Ways is an Easy Matter for
the New-Comer

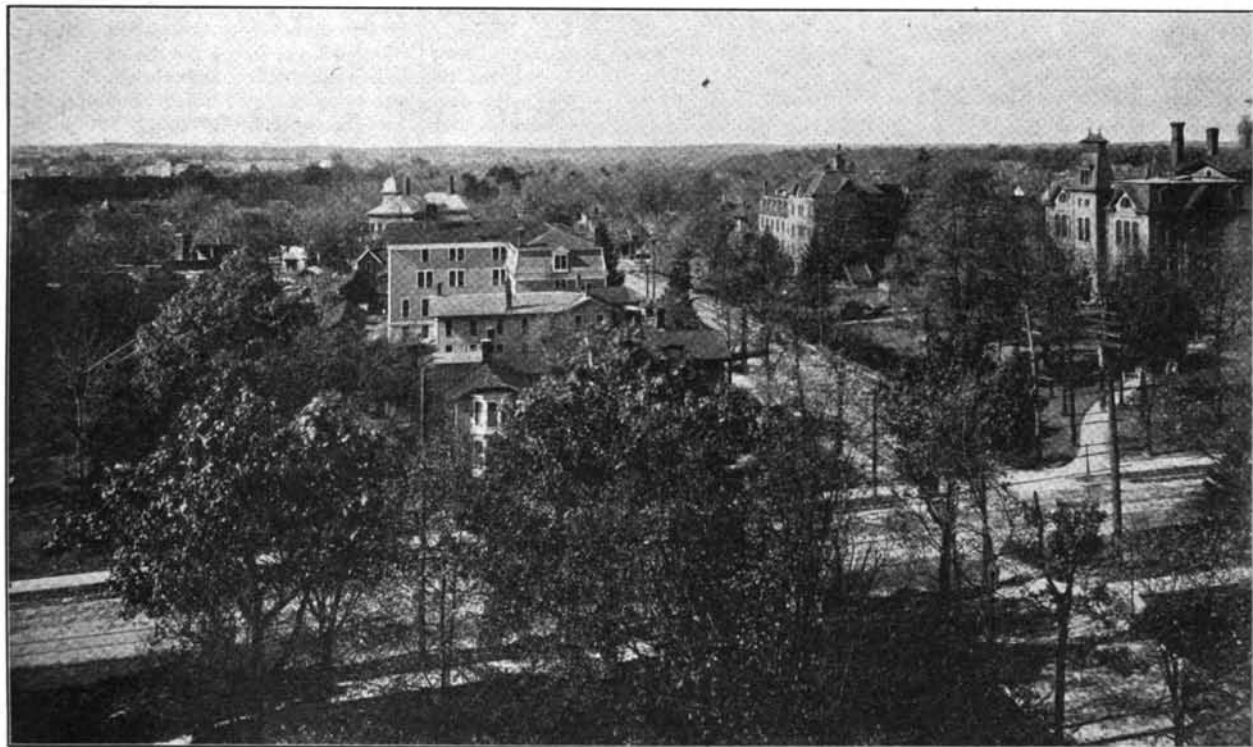
VERY naturally a person contemplating coming to the Battle Creek Sanitarium for a sojourn feels some trepidation as he or she anticipates the ordeal of introduction and becoming a patient in the institution. The new-comer has received circulars and has

We are a Dying Race

Abstract of Address Delivered at Beaumont, Texas, October 16, 1910,
by Dr. J. H. Kellogg

(Continued from last week)

OUR nearest relatives in the animal kingdom, the orang, the chimpanzee and the gorilla, in their native forests still adhere to the original bill of fare. In departing from our natural diet and essaying to consume the



FROM THE SANITARIUM ROOF, LOOKING WEST

but are, and were intended to be, the best of yoke-fellows.

The whole object of my last talk was to stimulate you to activity, and to get your reward for doing something in greater strength of tissue; to do something that will set your blood to running, give to your heart and

(Continued on page three)

learned from them something of the dimensions of the institution, and is filled with wonder as to how he will ever become assimilated into such a large family and find his place, get his share of attention, and not be lost and forgotten among so many.

But we assure the reader that the difficul-

(Continued on page three)

bills of fare of all creation we have become the most disease-ridden creatures in the universe and are creating new maladies every year.

The original man was born out of doors, that is his natural habitat. We have invented houses and thereby have created a multitude of house maladies, such as consumption,

Original from

UNIVERSITY OF MICHIGAN

pneumonia, bronchitis, etc. The consumptive moves out of doors, and gets well even when his lungs are breaking down with decay.

We Have Also Acquired the Dirty Habit of wearing clothes. We have exchanged the original fig-leaf aprons or thin bark garments for cumbersome clothing which excludes the light and the air and retains the excretions of the body, so that we are continually immersed in filth. These artificial skins contain no nerves or blood-vessels, and hence can not adapt themselves to changes of temperature. We should dress in white clothing, which permits our bodies to be bathed in light. Daily cold bathing and exposure of the skin to the air, with rubbing and grooming and exposure to the direct rays of the sun as often as possible will atone to some degree for the evil done by the wearing of clothes which modesty and inclemency of weather render necessary. Every city should have its playground, its swimming pool and outdoor gymnasium for both sexes separately, permitting exercise in the open air and sunlight with a minimum of clothing, so that the skin may have a chance to do its work normally and thus prevent many internal maladies.

The Almighty told Adam he must earn his bread by the sweat of his brow. The great ambition of most people nowadays seems to be to find some mode of making their living without sweating. Those who dodge sweating get the worst of it. It is the man who sweats through muscle activity that lives the longest. Thomas Parr, who lived 152 years and 9 months and then died of indigestion when on a visit to the king and feasted by him, was a laboring man and lived all his life on black bread, buttermilk and potatoes.

Exercise is the natural method by which the blood is purified and the vascular thoroughfares through which the blood circulates kept open and in good repair.

A French physiologist declared

A Man is as Old as His Arteries.

When the arteries are hard, a man is old, no matter how small the number of years he has lived. A boy died at fifteen, an old man with arteries hard as pipe stems, as the result of cigarette smoking. Metchnikoff, Huchard, and others have shown us that the arteries become hard as a result of the continuous circulation in them of small quantities of poison. A single blow from the mason's hammer does not break a hard rock, but repeated blows finally shatter it. Each blow contributes something to the final result. Drinking water which has circulated through lead pipes is one of the ways in which the arteries become hardened, thus producing premature old age. Other poisons are equally effective in producing premature old age. Among these are the poisons of tobacco. It is no wonder that we are 86,000 centenarians short of what we ought to have, when we smoke ten billion cigars and fifty-five billion cigarettes annually, and consume ten pounds of tobacco per capita.

The Man Who Says Tobacco Don't Hurt Him is Mistaken.

The man who says he will stop the use of tobacco when he finds that it is hurting him is laboring under a delusion. When the dam-

age is so great that it can be observed through its effects upon the heart, the brain and the kidneys, irreparable damage is done. The fire has burned from the basement to the top, the flames are bursting through the roof, the house is gutted. The enormous increase of Bright's disease in this country in the last thirty years runs parallel with the increase in the use of tobacco and alcohol. Alcoholic drink is just as deadly as tobacco; even when taken in so-called moderation in the form of beer or wine, the mischief is done just the same. The Germans drink beer and have one centenarian in 700,000 of their population. The Hungarians drink buttermilk and have one centenarian for every thousand of the population, or 700 times as many in proportion as Germany.

But we poison ourselves with other drugs, notably tea and coffee. Doctor Wiley has shown that an ordinary cup of coffee contains four grains of caffeine, a full medicinal dose. Every heart specialist knows that coffee raises blood-pressure through contracting and hardening the arteries. Tea does the same. A glass of coca cola contains as much caffeine, according to Doctor Wiley, as does a strong cup of coffee. The use of all these cola preparations sold as

Soft Drinks Should be Prohibited by Law.

Thousands of people, even boys and girls, are getting the coca-cola habit, they are becoming caffeine drunkards, are being irreparably damaged. Cocoa and chocolate also contain a poison, theobromin, which is practically the same as the caffeine of tea and coffee. Caffeine is essentially the same thing as uric acid, it produces the same effects that are produced by uric acid, and some that are worse. A cup of coffee contains in effect more than twice as much uric acid as is contained in the same quantity of urine.

Mustard, pepper, peppersauce and other

Hot Condiments Are All Poisons.

They not only produce chronic gastritis but harden the arteries. This has been shown by Huchard and other European investigators, who injected extracts of these condiments into the veins of dogs and rabbits and produced hardening of the arteries in four months. These poisons act more slowly in human beings but none the less surely. I had under my care from Texas a few years ago a very prominent gentleman, whose liver was nearly four times the normal size, as a result of eating red peppers. He died within two months of dropsy, in spite of all that could be done for him. It is better to apply the mustard plaster to the outside of the stomach than to eat it and thus apply it to the inside. Hall, of Manchester, has shown that a pound of beefsteak contains fourteen grains of uric acid, and a pound of sweetbreads seventy grains. The kidneys normally discharge from the body six grains of uric acid in twenty-four hours. It is easy to see that the work of the kidneys may be enormously increased by the use of flesh food.

But Metchnikoff has shown us that

The Worst Poisons of All,

those that produce premature old age and harden the arteries the most surely, are the poisons which result from the putrefaction

of portions of meat that have been eaten and have not been digested. A dead rat in the closet generates a great variety of poisons, some of which are volatile and produce a horrible odor. Thousands of people go about with a dead-rat odor in their breaths because of the putrefaction which is taking place in their colons. Dead flesh of any kind produces the same malodors when it undergoes decay as does a decaying rat. Flesh will decompose in the interior of the body much more rapidly than on the outside, at least when it has missed digestion and absorption and remains in the colon. Metchnikoff suggests the use of sour milk and buttermilk to disinfect the intestine and prevent putrefaction. His colleague in the Pasteur Institute, Tissier, the real discoverer of the friendly germ idea, insists that it is better to keep the alimentary canal sweet and clean by omitting to swallow foodstuffs that so readily undergo decay.

We Can Get Along Very Well Without Meat.

Chittenden has shown that we habitually eat two or three times as much protein as we need, which means that we can cut meat out of our bill of fare without the slightest inconvenience. Fisher, of Yale, and others have shown that endurance is enormously increased by cutting out meat. Karl Mann walked from Dresden to Berlin, 124 miles, in less than twenty-four hours. The man who holds the record for the marathon race in this country is a flesh abstainer. Fisher's test experiment, in which he compared fifteen Yale athletes—gymnasts, baseball men, wrestlers and football men—with the nurses and attendants of the Battle Creek Sanitarium, showed that the flesh-abstainers far excelled the flesh-eating athletes in endurance, being able to hold their arms out straight nine times as long as the flesh-eaters.

Mr. Horace Fletcher, by thorough mastication of his food, restored himself to health after he was nearly fifty years of age and had been refused life insurance. He found that chewing was a complete regulator of nutrition. It led him to drop out meat, tea, coffee, wine and cigars, to which he had been addicted, and he renewed his youth. An eminent army surgeon whose blood-pressure had reached 210, double the normal, by cutting out meat, tea, coffee and tobacco and taking care to chew his food properly, reduced his blood-pressure thirty points in four days. Major Owen, a retired army surgeon, whose blood-pressure had reached 240, and who was broken down in health, by cutting out meat, tea, coffee, tobacco and alcohol, reduced his blood-pressure to normal in a year and a half. His blood-pressure is now 110 and he enjoys perfect health.

What We Need is a Mild Return to Savagery.

If we are compelled to work indoors, we can at least sleep out of doors, and so have an outing every night. Every person should do enough muscular work every day to induce free perspiration. Take a cold bath daily, or a very short hot one if the cold is unbearable, or take an air bath instead.

Wear as light clothing as is compatible with comfort, with cotton next the skin.

Walk erect, hold the chest high and breathe deeply. Carry the chest in front instead of behind. Sleep eight hours. Eat sparingly. Chew the food thoroughly, until it swallows itself. Eat something fresh, uncooked, such as lettuce, cucumbers or fruit, at every meal. See that the bowels move after every meal, if possible; at least twice a day. Keep clean, externally, internally, physically, morally. These are the chief rules of health. It pays to be good. Join the Health and Efficiency League of America and live one hundred and fifty years.

HOW A STRANGER IS RECEIVED

(Continued from page one)

ties that may exist in the mind about the introduction and becoming acquainted with the routine of Sanitarium life, wanted to its ways, and into touch with its work, are all imaginary. They do not exist when one comes to the real experience.

It will be well, perhaps, to trace the new patient step by step until he is fully initiated into Sanitarium life.

Of course he has had some correspondence with the managers and understands in a general way at least the terms and the probabilities in his case, and is assured of a kind reception and good attention. These begin the moment he emerges from the train at one of the fine stations with which the city is provided by its two great railways, the Grand Trunk and the Michigan Central. Battle Creek is located on the crossing of these two routes, than which the country affords no better. The stranger hears some one call out pleasantly, "The Sanitarium," and sees a stalwart young man in uniform with the name "Sanitarium" across his cap. The visitor indicates that he wishes to go to the Sanitarium, and is at once taken into the care of capable and attentive hands. From that moment there is no time when he is at a loss as to what he is to do.

Taken to an easy carriage he is transported in a few minutes along the streets of a

Most Beautiful and Attractive Little City up the gentle hill upon which the great institution stands, and landed at its main entrance. Here porters await him and conduct him to the desk, where he registers his name and address. The rooming clerk next consults him about his room. There are rooms *en suite*, rooms without or with private bath, rooms in the main building, in East Hall, South Hall, or cottages. In a very few minutes this matter is settled, and the stranger, now no longer a stranger, but a guest, is escorted to his room, where his baggage is soon delivered.

He is given a dining-room ticket at the desk and shown how to reach the rooms by elevators, for the dining-rooms are on the top floor. Here the one in charge meets him and shows him a seat that is to be his own, and which will be reserved for him as long as he wishes to occupy it. The waiters attend to his wants carefully, explaining the menu, and indicating the foods that will probably be best suited to his needs. As soon as he has seen his physician, he is instructed as to his diet, and the dietitian in charge of the dining-

room will see that he gets the proper food in suitable quantities.

Arriving near night, perhaps, and being somewhat wearied with the journey and the excitement, he takes a bath and retires to rest until next day, when the medical office looks him up and he is shown to the office of the receiving physician, where the history of his case is taken and he is assigned to the doctor who will have special charge of his case. The doctor makes a careful investigation of the patient's symptoms and physical condition, and sends orders for all the necessary examinations to be made by those in charge of the research laboratories. In a day or two the doctor has before him a full report as to the condition of blood, urine, gastric secretion, and the other secretions and excretions which have been examined, and is now able to diagnose the case without any question or uncertainty. The matter of prescribing appropriate treatment is thus simplified, and the patient is shown the treatment rooms, and his daily program is

importance of the rest period which should immediately and surely follow this period of activity.

It is not so easy to make clear the necessity of relaxation as that of activity; the high pressure of modern living, the great variety of demands which are made upon men in almost every occupation to-day, renders the emphasis of relaxation imperative. A bow which is never unstrung at last becomes weakened with the undue tension, and breaks. The man of sedentary habits of living may for many years bear the strain of excessive mental cares and worries, the undue emphasis placed upon one side of his organism, his brain and nervous system, but he finally breaks down. We used to call this ordinary nervous "breakdown," but now we have coined a more euphonious term—neuroasthenia—more classical and high-sounding, which tends to obscure the ordinary hard facts of the underlying causes and to palliate and extenuate the ignorance of ordinary physical laws, the mad pursuit of money



IN THE RECEIVING PHYSICIAN'S OFFICE

mapped out for him and explained so that he knows what to do, and where to be each hour of the day.

The Daily Program

is calculated to fill up the entire time with things that contribute to getting well. That is supposed to be the purpose of the individual in coming to the Sanitarium, and of course he is anxious to be through and able to return to his home and business as soon as possible. So every hour in the twenty-four is utilized to that end. Of course it is not all activity and work, for there are periods for sleep and rest, times for exercise and recreation, lectures and entertainments, treatments and meals. The physician has but one end in view, the restoration and upbuilding of the patient.

TENSION AND RELAXATION

(Continued from page one)

lungs a more rapid rhythm, and set all your muscles and nerves to tingling with newness of life. What I want to urge to-night is the

and position, or the weak self-indulgence which has brought an effective life low.

Conditions Have Changed

The conditions of this generation are not the same as those of the last. There is apparently an increment of impetus each year toward complexity of life. The rush and the whirl of competition is the maelstrom, and the plunge of the age into specialization is the vortex. This specialization toward mental effort must be met by specialization in muscular ways. This abuse of the few muscles and nerves must be evened up by the use of the many,—this one-sided development by all-round development.

The early immigrants who settled these United States were for the most part men of brawn as well as brain. The mere fact of their bold venture into an untried country proclaims this all-round strength of manhood. Our forefathers have been, principally, men of the soil until the last few decades. Congestion of population in cities is a thing of the last two generations. Physical degeneracy marks this period.

(Continued on page five)

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THE PRECIOUS MORNING HOURS— WASTED FOR FRIVOLOUS EVENING HOURS

A DAY that is well begun is almost sure to be a successful one; while, on the contrary, a day whose first hours are wasted is past redemption. In order that the day may pass pleasantly, smoothly, and successfully, being filled full with the best accomplishments, it is absolutely necessary that it should be begun deliberately, calmly, methodically, each feature of a wise program carefully planned and executed, and the succeeding events receiving due consideration and ample time.

The average case may be stated somewhat as follows: The time for retiring to rest is put off till nearly half the night is gone. Cards, or novels, theatre, idle chat, or some altogether profitless diversions are allowed to steal the precious hours of the early night, the very best hours for refreshing sleep, until finally, late at night or perhaps early in the next morning, the individual drags himself off to bed. The result is that he must lie in bed the next day until the last possible moment. When the morning is well spent he arouses to the consciousness that it is very late, that he is needed at the office, or that he is expected at his job, and there will be trouble if he is not there at once. Hastily putting himself into his clothes, and taking time for only a mouthful of breakfast hastily swallowed and not chewed at all, because it consists largely of a dish of oatmeal and two cups of coffee, he rushes out to catch the car. His family is neglected, no time for kind words and cheerful greetings, wife is nervous and fretful, children are uncared for, and everybody arose so late that the whole place is in neglect and disorder.

In such a home (if it may be called by that sacred name) there is no time for the reading of the Bible and prayer, the day is begun without a thought of God, without a moment for considerate preparation or planning, things come upon the wife pell-mell and all at once, and no wonder she is fretful, impatient, half sick, and altogether discouraged and out of sorts.

These things are the real cause of very much of the discontent and ill feelings that exist in many homes. The constant reading of novels and highly seasoned literature, the constant attendance at the theatre, the conversations that are made up of scandals and things that are bad, all go to contort life, and make it sour and disagreeable. They serve to transpose the individual into an imaginary world which gives him a disgust for the realities of life and make him discontented with his lot.

Nor is it the moral aspects of the situation alone that should appeal to us. The physical results of such a life are altogether baneful. Regular habits are unknown; no attention is given to the natural wants of the body. The rhythm of life is broken up, and morbid conditions soon prevail. Constipation is encouraged, indeed it is forced upon the individual, because there is no time for the consideration of the natural functions, they are attended to only when they force themselves upon the attention, and this they soon cease to do. The result is a nervous breakdown and general failure on all counts, a disordered home and a disordered life, a fragmentary existence with nothing definite accomplished. And, kind friends, the first cause is very largely in the wasted morning hours, that precious period that should be calmly given to preparation for the day and its duties; and this period is in turn sacrificed by the late hours of the preceding night. Is it not well worth while to give up these useless and frivolous ways of spending the early night hours for the better way of retiring early to bed, gaining helpful sleep, and arising early enough to begin each day deliberately and wisely?

OUR RESPONSIBILITIES

THE appearance of new diseases as well as the fearful increase of old ones, is a most positive witness against the living habits of the present generation. Infantile paralysis is a comparatively new term, and yet it has already clothed itself with terror, and it comes to all ears as a most unwelcome sound. It seems to prevail almost as an epidemic. The origin of the disease has so far baffled the skill of physicians, and they are equally helpless in its presence. The innocent victims have done neither good nor bad, but through generations, probably, the seeds of this malady have been sown, and its elements have been gathering for the final outbreak.

It hardly seems just that the fathers should be permitted to eat sour grapes, and the children's teeth be set on edge; and there is a feeling of almost rebellion in our hearts as we read those awful words of divine justice which declare that the iniquities of the fathers shall be "visited upon the children unto the third and fourth generation of them that hate me." But this is not a penal visitation; it is rather the reaping of consequences. A wide distinction should be made between penalties and consequences; between

punishments and results. The law of penalties is arbitrary, but that of consequences is inexorable and everlastingly fixed. If the consequences of our misdeeds do not fall upon our own pates, they are sure to come down upon some one else; if we do not reap our own sowing, our children are bound to do so, if not in the first generation, then in the third or fourth.

So long as we as a people go on sowing the seeds of intemperate living, we are simply heaping up sorrow for those to whom we owe the tenderest consideration. These considerations alone, if there were no others, should make us careful and considerate of our ways.

RECEPTION TENDERED DR. FRANCIS E. CLARK

THE Sanitarium Christian Endeavor Society, on Tuesday evening, November 8, gave a reception to Dr. Francis E. Clark, in behalf of the young people of the Sanitarium and city. It was a most interesting occasion, and the guests of honor seemed to highly appreciate what had been done for their comfort and entertainment.

On the receiving line were Mr. S. S. McClure and Mr. Wilfred C. Kellogg, and the missionary committee by whom the guests were presented to Doctor Clark and then taken to the various booths where countries were represented in miniature by seven different groups of missionaries dressed in native costumes. Each group had arranged curios and photographs of their countries on tables provided for the purpose. The coloring of native dresses, the rugs and flowers, palms, foreign flags and curios, all made a most intensely interesting picture, and for nearly an hour each group was the center of a charmed and delighted company of visitors. The orchestra rendered some delightful music under the direction of Mr. Drever, and the ladies' chorus gave two selections in such a charming manner that it elicited an *encore* that could not be denied.

Then the President of the Sanitarium Christian Endeavor Society, W. C. Kellogg, took the platform and in a few well-chosen words welcomed the guest of honor and the young people, and introduced the principal speaker of the evening, Dr. Francis E. Clark.

Doctor Clark endeared himself to his hearers by his earnest, genial expressions of appreciation and good-will. He told of many interesting things in connection with Christian Endeavor work in other societies, and especially in other lands. Evidently the gathering of the nations had refreshed his mind with many personal experiences that he had had in those countries here represented.

The next speaker was Doctor Kellogg, who, after welcoming the guests of the evening, introduced Mr. S. S. McClure, who chose for his theme the increased efficiency and vigor that he had personally experienced by attention to dietetic laws and principles. As always, his speech was enlivened by many flashes of Scotch humor. Altogether it was a most enjoyable evening, and the various committees are to be congratulated upon the success of their efforts, while special thanks are due to the missionaries whose untiring

efforts made this unique occasion possible. The countries represented were as follows:

India, Mrs. I. L. Stone, Rev. and Mrs. H. A. Haslam and Mrs. Mansell; Africa, Mrs. Joseph Clark and her son and daughter, and Rev. and Mrs. Niepp; Turkey, Doctor and Mrs. Hambleton and Mr. Adrounie; China, Miss Martin, Miss Anderson, and Doctor and Miss Canright; Mexico, Misses Lopez, Membrillo, and Carillo; Japan, Miss Eva Rollman; Porto Rico, Rev. and Mrs. A. H. Leo, and Rev. and Mrs. Cober and son.

TENSION AND RELAXATION

(Continued from page three)

What Does This Mean?

Simply that the natural forms of exercise, both of games and of physical labor, which sixty years ago formed a part of the daily life of all classes of society, have been dropped out of our program. Our grandfathers tell us how the parson cut his own wood, and hoed his garden; how the doctor built fences around his little domain, kept cows and chickens, hunted, fished, and rode horseback many miles to find a patient. They tell us also how people lived despite the bleeding, blistering, and other robbery of life on the part of those doctors.

This all-round development of a half century ago depended upon the all-round healthful forms of activity of the average individual. The student of that day was the commonest exception to the rule of this integral development. The student of to-day is superior in knowledge of hygienic conditions and often in strength; and in keeping with the tendency of the age toward specialization, the modern student excels the student of the 40's in all athletic events and feats of strength. The reasons are obvious. Formerly the boy who was too weak for physical labor was sent to college. The young man of strong body whose natural tastes led him into the search for knowledge entirely ignored the limitations of his superb vitality and drew upon it for any number of hours of mental effort, distinguished himself in college and in the scientific world by maturer investigations,—but where are his children? In nine cases out of ten, people of mediocre strength in every sense.

Parents Responsible

Too often the fathers and mothers of to-day are criticizing and berating their children for general worthlessness and shiftlessness which is not simply the fruit of early training but of the spendthrift lives of their parents. They are not able to hand down to their children the heritage of native strength and unlimited vitality which came to them. Sexual excesses, hard drinking, fast living, and all such really criminal expenditure of the strength of the race are responsible for much, but the overwork, physical and mental, the exposure and actual privation of parents, the things for which we honor them most, are after all responsible in great measure for many of the sad cases of weakness, atrophy and disease of to-day.

The tendency of the age is to specialization, even in disease. The ground of this is

very clear. The cause which has led to the multiplication of diseases and complications of the same, is this same specialization of individuals in various lines of activity. As an example, note the various diseases of the eyes which arise from their misuse. Nervous prostration, now so common, arises from increased neural activity on the part of an individual with lowered vitality. The tendency of the age is to the artificial rather than the natural, and in the grand scramble after the latest thing, the essentials of life are in a great measure overlooked.

The Extreme of Muscular Tension

is what is called tetanus; that is, permanent or continuous contraction. An example is to be found in the so-called cramp. The condition is brought on by over-exertion of the muscle fibers, and is due to the over-stimula-



SANITARIUM MAIN PARLOR, WHERE SOCIAL HOUR IS HELD

tion of these fibers by the nerve centers involved. The extreme of relaxation is illustrated in the condition of muscles and nerves during fainting. The condition is temporary, and is induced by the flow of blood away from the head.

Activity is constructive, and muscles and nerves must be used in order to preserve their tone. Weak, flabby muscles usually mate with a weak will, while strong, vigorous muscles are as a rule associated with a vigorous intellect and will.

We are not concerned so much with extremes as with ordinary conditions. What is that state of tension and fatigue from which relaxation must deliver us? The problem of muscular fatigue is comparatively simple. To quote Doctor Howell, "It has a twofold cause, the decrease in energy-holding compounds and the accumulation of poisonous waste matters." To illustrate, suppose we take simply one cell. After a good night's sleep, we have a well-filled cell; there is the granular substance, which is the protein matter, and the storage matter, which is used for

the production of heat and work in the body. After a period of work, we have a cell that is more or less shrunken, according to the degree of work; but the most pronounced result of exercise is the production of waste matter from the breaking down of the tissues. The waste matter is poisonous, and this is the cause of the sense of fatigue.

What is Weariness?

It is not a sense of weakness from lack of storage tissue, but a sense of discomfort and weariness from poisoning, autointoxication. In evidence of this you will readily recall the invigorating effect of a brisk walk, wheel ride, or spin over the ice when you were already thoroughly fatigued. You have taken a little exercise, and you have felt invigorated, although you were very tired when you went out. The explanation is probably

this: The exercise increased the number of waste products, but it stimulated the circulation and the elimination of those waste products even more, so you felt refreshed. It is simply a quickening of the circulation, a more rapid elimination of waste products, and you feel refreshed instead of fatigued. The explanation is that the fatigue was due to a sluggish circulation, and the accumulation of these waste products, and perhaps within the brain, while you were sitting still. It could have been relieved by anything which would equalize and quicken the circulation,—by a warm bath, by massage, or by mechanical Swedish movements just as readily as by taking a walk.

Howell says: "If a muscle is made to contract vigorously and continuously, as when a heavy weight is held up, fatigue comes quickly; on the other hand, a muscle may be contracted a great many times if each contraction is of short duration and considerable intervals of rest intervene between the successive contractions." Then he gives as an example the heart. And what prevents

the heart from wearing out is simply that pause between the beating.

Then we find the whole secret of the regulation of exercise and rest period. You will never suffer from fatigue if you properly alternate rest periods and effort in the right proportions.

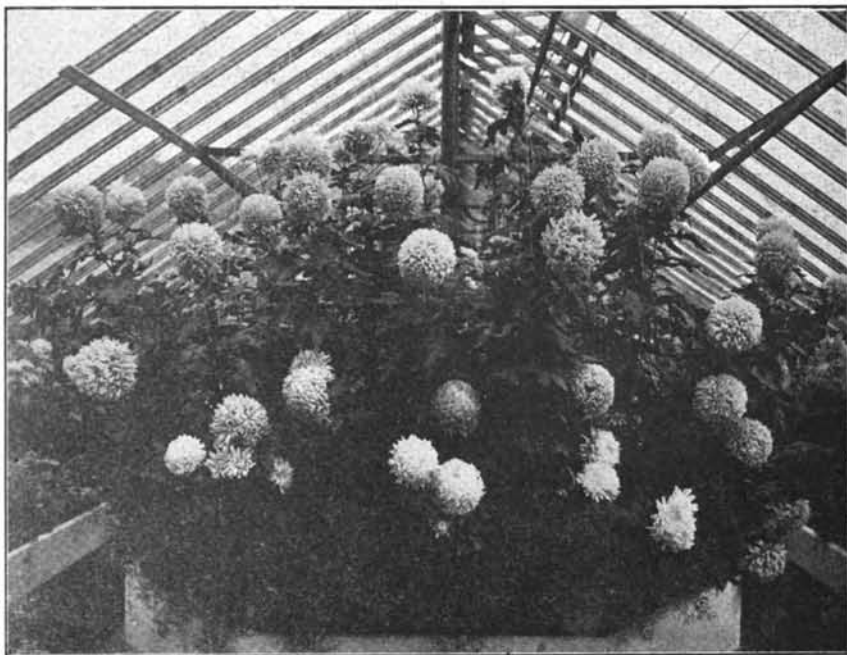
But it is fatigue of the nervous system which is after all the most difficult to measure and to avoid. It is well to keep in mind that rich red blood is not made in the brain but unmade; the very quintessence of it is

peace; and lack of peace is due to lack of harmony with God.

ARRIVALS

FOLLOWING is the list of arrivals at the Battle Creek Sanitarium for the week ending November 13: Mrs. M. G. Stiger, S. Dak.; Chas. L. Kipp, Mich.; J. H. Allen and Elsie D. Allen, Ill.; J. Corey, Mich.; Geo. W. Brady, Chicago; A. G. Brunsmann, Cincinnati; Mrs. Fred F. Bullen, Chicago; Dr. R. H. McKinney, Mo.; Mrs. Geo. E. Citcher,

Jr., and Miss Alice N. Macke, Miss.; O. C. Gibbs, Mich.; E. J. Phelps, Minneapolis; C. L. Dearborn, Mich.; Mr. and Mrs. L. E. Phillips, Okla.; H. M. Simmons, M. D., New York City; Wm. C. Phipps, Mich.; Mrs. A. C. Showalter, Buffalo; Harry B. Baker, Mich.; Benj. Wilk, Chicago; Mrs. E. S. Folsom and Mrs. H. W. Buttolph and son, Indianapolis; Miss Alta A. Floyd, O.; J. F. Moltrup, Pa.; Wm. Burtless, Mich.; W. W. Fowler and Mrs. L. L. Bascome, Mich.; C. M. Dolman, Ind.; H. C. Butler and Mrs. Butler, Mich.; Dr. J. F. Davidson, Ind.; H. M. Steele and wife, O.; Franklin Moore and Laura Moore, Mich.; E. Andrews, Guy MeCamont and Harry Messer, Ill.; Jennie L. Hall and Mrs. W. F. Hall, Ill.; Miss Elizabeth Brown, N. Y.; Mrs. F. G. Moorhead and son, Pa.; J. M. Leonard, Mo.; D. N. Spencer, Va.; L. A. Clark and wife, Ind.; Cora L. Allen and Helen Davy, Mich.; F. Wyder, New York City; Rebecca Patrick, Mich.; Richard S. Bohn, Ind.; Miss Z. A. Bunn, Pittsburg; Wm. V. Morre, Rochester; R. R. Powell, Ga.; Mrs. Mollie A. Powell, Tenn.; Dr. J. R. Perkins, Va.; Blanche M. Cooley, Mich.; Emerson Southerland, Ont.; Mrs. W. F. Hall, Jennie L. Hall and Mrs. M. Garner, Ill.; Miss Mauriette Chambers, O.; J. M. Gillpean, Ill.; Mrs. Sarah Foote and Mrs. L. Stillwell, O.; Mrs. F. A. Ames, Ky.; Mr. and Mrs. W. C. Hanna, Ill.; Eula Griest, Ind.; Jessie B. Marker, Pittsburg; Isaac Lloyd and Annie B. Lloyd, Pa.; C. C. Fuller and wife, Ind.; F. J. Conrad, New York City; Wm. McPherson, Jr., and E. G. McPherson, Mich.; W. Walker, Mich.; Jacob Fisher, Ind.; H. A. Bundselm, Mich.; Harrison S. Elliott, New York City; L. M. Schroeder, City; Robt. L. Rue, Boston; O. G. Forrell, Washington, D. C.; T. J. Norton and W. M. Griggs, Chicago; Mrs. J. M. Bashford, China; Mrs. J. F. Fabyou and Mrs.



CHRYSANTHEMUMS IN THE SANITARIUM GREENHOUSE

required for the use of the brain and nervous system, and good blood must be made by activity, by the usually good nutrition. It appears that the nerves differ from the muscles in that their fibers exhibit no symptoms of fatigue, but the nerve cells themselves exhibit fatigue and require relaxation. The nerve fibers never seem to be fatigued, but the nerve cells themselves exhibit this fatigue and require relaxation.

A Change of Work is a Real Rest,

and we ought to do more of that. If we have to work all the time, we should work a while on one thing, then make a little change and a little relaxation by working a while on another object.

We all know that during the period of sleep the body builds up these cells. The tearing down process goes on during the day, and we lose a little more than we gain. While sleeping we get it back, if the sleep is sound. Hence the importance, then, of securing sound sleep, and enough sleep. How much is enough is an individual question. I would say, from seven to nine hours; some say even as low as six.

Further, I believe that the soul, in order to be harmonious in itself, must be in harmony with the Maker of the world; and I believe that this wearing out that is characteristic of us all is due in great measure to lack of poise, and lack of poise is due to lack of

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Hamilton, Chicago; D. J. Fraser, Mont.; Emma Pinney, Ind.; H. W. Mount and C. E. Bates and wife, Chicago; B. E. Moses, Tenn.; W. M. Pindell, Chicago; Dr. Sayles, Kalamazoo; Miss Kate Ritzmann, Cincinnati; James M. Norris, Pa.; S. S. McClure, New York City; L. B. Gesnet, Mich.; Simon Moses, Miss.; Don Paterson and Mrs. Paterson, Mich.; W. A. Chambers, Tenn.; H. D. Watring and wife, Mich.; Mrs. Francis R. Kunsy, Brooklyn; R. G. Gartblatt, Canada; E. H. Sebring and wife, Ohio.

News and Personals

Rev. K. E. Pease, a missionary of the Methodist Board in Singapore, S. S., visited his wife and family at the Sanitarium and took part in the district Methodist Convention being held in Battle Creek.

Mr. T. J. Norton, of Chicago, a former patient, has returned for a course of treatment. Also Dr. C. P. Sayles, of Kalamazoo, Mich.; Mr. Isaac Lloyd, of Swissdale, Pa., and Mr. C. C. Fuller, of the Industrial Mission of India.

Mr. S. S. McClure, a guest of the Sanitarium, spoke to a large audience in the Baptist church on Sunday evening, and Rev. Henry Clay Morrison, also a Sanitarium guest, preached most acceptably to the people of the Presbyterian church.

A concert by Miss Lenna Lee Leonard was given in the Sanitarium parlor on Tuesday

evening. Miss Leonard has recently returned from Paris, where she has been studying under famous masters. Mr. Wm. Van Buren, the well-known pianist of Battle Creek, also contributed to the evening's enjoyment.

Mr. G. S. A. Thompson, district passenger agent of the Pennsylvania Lines, visited the Sanitarium last week with Mr. R. N. R. Wheeler, the local representative of the New York Central Lines. Mr. Thompson lately sent the Sanitarium a beautiful brochure of the Pennsylvania road.

Mr. H. G. Butler and his family, from Montana, have returned to Battle Creek to spend the winter. Mr. Butler was formerly superintendent of the Sanitarium and Corn Flake food factories, but removed to the West nearly two years ago to engage in farming. We are glad to have them with us again.

Miss Grace Holwick, a graduate of the Domestic Science School, has returned to assist in the dietetic department. Miss Mae Allison, who assisted in the diet kitchen, has gone on leave of absence and is expected to return after Christmas. The dietary department is already busy planning a delightful Thanksgiving dinner, which will materially enhance the season's rejoicing.

It has been decided to hold the next Medical Missionary Conference at the Sanitarium during the first week of the coming new year. It is expected that the meeting will be attended by a large number of missionaries, both medical and evangelical. A most attractive program is assured. The meeting will last four days, instead of three, as has been the case with former meetings.

A most delightful social hour was enjoyed by our guests in the Sanitarium parlor on

THE BATTLE CREEK SANITARIUM AND HOSPITAL TRAINING SCHOOL FOR NURSES, BATTLE CREEK, MICHIGAN

This institution offers a three years' course of instruction for women and two years for men. In addition to the usual subjects taught in hospital training schools, special attention is given to all branches of physiologic therapeutics, including hydrotherapy, radiotherapy, phototherapy, kinesotherapy, or manual Swedish movements, and massage.

Among other special advantages offered are laboratory instruction in bacteriology and chemistry, the use of the microscope, urinary analysis, practical course in cookery and dietetics, medical gymnastics, swimming, anthropometry and open air methods.

Applicants received whenever vacancies. The next class will be organized the first of October, 1910. For full information address

Sanitarium,

Battle Creek, Mich.

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A CLASS DEMONSTRATION

The Battle Creek Sanitarium School of Health and Household Economics furnishes two courses in Domestic Science, based upon the principles of Health and Hygiene as established by the most recent findings of scientific investigation.

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A SPECIAL FEATURE of this School is that students are given an opportunity to meet a large part of their expenses by employment of a character that will aid them in their training.

Address all inquiries to

The Sanitarium School of Health and Household Economics,

LENNA F. COOPER, Director,
Battle Creek, Michigan.

Wednesday. An excellent program of musical selections was rendered by a very fine graphophone, kindly loaned by Doctor Vince, the Sanitarium dentist, much to the delight and satisfaction of the audience. The program was interspersed with two most excellent readings by Rev. Alexander H. Leo.

Thanksgiving will be properly observed at the Sanitarium. Union services will be held in the forenoon at the Baptist church, where a discourse will be delivered by Rev. E. G. Lewis, D. D. The Sanitarium is planning an excellent dinner for the entire family, and at half-past three there will be Thanksgiving exercises in the parlor, consisting largely of singing, with two or three short addresses.

Mr. Harrison S. Elliott, international secretary of the Y. M. C. A. for Bible study, was a visitor at the Sanitarium last week, having the purpose of arranging for a Bible institute to be held with us during the coming winter. It is probable that the convention will be held in February, and will extend over three days, and we shall have the benefit of the teachings of some eminent men in Bible study.

The Normal School of Physical Education gave a pleasant evening's entertainment to Sanitarium guests in the gymnasium on Saturday evening, November 12. The recreative games which they played were amusing to both students and spectators, and were participated in by the students with an energy which was inspiring. The onlookers became quite animated over the gymnastic contests that were carried on under the able direction of Dr. Wm. W. Hastings, Dean of the Normal School, Professor Anton Schatzel, and Miss Justine Wade.

The Sanitarium Helpers' monthly meetings have again been resumed. The first of the season opened on Wednesday night and was attended by between four and five hundred, who listened attentively to remarks by Chaplain McCoy and Doctor Kellogg, on the history of the Sanitarium enterprise and the future outlook, and the splendid opportunities for efficient service for humanity. It is intended to hold these meetings regularly each month, and to reward faithful attendance by certain concessions and privileges of use to the helpers.

The music rendered by the orchestra, under Mr. Wm. Drever, during the dinner hour, is much appreciated by the guests, judging from the frequent and hearty applause. One day the program consisted of the following numbers:

March—State NationalAtherton
Waltzes—The CharmerWaldtenfel
Serenade for violin.....Pierne
Selection—MarthaFlotow
Waltz Lente—Mon AmourVanderpool
Scarf DanceChaminade
Intermezzo—In a Garden of Melody..Sudds

The Christian Endeavor Society met Friday evening, as usual, in the chapel. The topic was "Temperance." Prof. Henry M. Allen led the meeting and spoke on the proposition that "Modern Society Demands the Abolition

of the Saloon." In his remarks Professor Allen said that public sentiment against the liquor traffic was increasing for two reasons: first, because the business of to-day can not afford to have employees whose intemperate habits make them careless and inefficient; second, because the saloon was a center of evil of all kinds and the liquor merchants repeatedly defied the laws. Election of officers for the Society for the next six months followed.

The medical office had a pleasant call from an old patient, Rev. E. H. Richards, of Imanebane, Africa, who was present at the district convention of the Methodist church in Battle Creek. He reported that himself, wife and the baby boy born in the Sanitarium several months ago, were all in excellent health and still feeling the benefit of their recent visit here. Another welcome visitor was Rev. Carl Critchett, of Korea, who was also attending the same conference and brought with him Rev. R. de Souza, of India, who was much delighted and impressed with his first visit to the Sanitarium. He promised to make a gift in the near future to the museum.

Among the recent arrivals are Mr. Jas. N. Morris, of Homestead, Pa., superintendent of the public schools; Mr. E. J. Fraser, a prominent merchant of Livingston, Mont.; Mr. W. C. Hanna, former patient from Peoria, Ill.; Mr. D. W. Spencer, a prominent business man of Spencer, Va., who is accompanied by his physician, Dr. J. R. Perkins; Mr. Thos. Dolan, foreman of a large manufacturing house in St. Ignace, Mich.; Mr. L. A. Clark, traffic manager of Ball Brothers Glass Co., of Muncie, Ind.; Mr. H. C. Butler, a prominent hardware merchant of North Branch, Mich.; Mr. A. G. Brunsman, carriage manufacturer of Cincinnati; Mr. A. D. Palmiter, a machinist of Ironton, O.

The patients in the Sunshine Hour have been exceptionally favored by a great treat of good things from Sanitarium guests, among whom we mention Dr. Francis E. Clark, founder and president of the Christian Endeavor movement, and Professor Robert Irving Fulton, who delighted his audience with a selection of very fine readings. There have also been some delightful numbers on the violin from Miss Farquharson, and splendid piano selections by Miss Meme Smith, which have contributed largely in making it one of the brightest hours of the daily program. Patients steal away from the strenuous pursuits of health-getting to the cheerful half-hour in the Sanitarium parlor, where the general health instruction is interspersed with good cheer of music and pleasantries.

The "International Limited"

ONE of the most artistic folders issued by the Grand Trunk is a brochure just out giving information regarding the "International Limited," which is heralded as Canada's fastest train, as well as its finest. The booklet is prepared in most attractive style, well printed and illustrated, while the esthetic relation of type and illustrations is maintained to a notable degree. The story of the "International Limited" is a familiar one to Canadian, as well as American, travelers, but, as shown in the latest publication of the Company, it is still not merely interesting, but attractive. A full description of this train between Montreal and Chicago is given, together with all the information regarding time and accommodation, that any passenger could require, the whole tastefully put together and artistically illustrated. A copy may be had free on application.

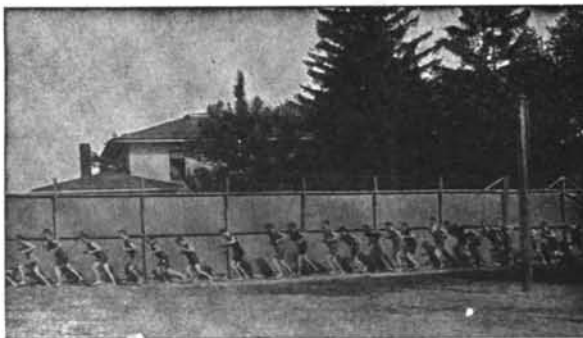
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THE BATTLE CREEK IDEA



Vol. III No. 51

BATTLE CREEK, MICH., NOVEMBER 25, 1910

Price 2 Cents

Thanksgiving at the Sanitarium

The Blessings of the Year Heartily Recognized by the Sanitarium Family
—How it Was Done

WE all feel that we have many causes for gratitude to the great Giver of every good and perfect gift. It was a very happy thought that gave to us the custom of setting apart one day in the year for the purpose of calling to mind our many blessings and to

Sundry Questions

Asked by Patients and Answered by
Dr. J. H. Kellogg in His Monday
Evening Lecture

QUESTION. What is there in general hydrotherapy that is beneficial to inactive bowels?

ANSWER. Short cold applications are of great value as a means of stimulating intestinal activity. You know the effect of a little

PHYSIOLOGICAL NECESSITY OF HARD WORK

Work is Honorable; Sweating is Essential; Weariness is Physiological—Parlor Lecture by Dr. J. H. Kellogg

I AM to talk to you to-night on a subject that I fear will be unpopular. I do not expect any applause, for I purpose to talk to you about hard work. The Lord told Adam he must earn his bread by the sweat of his brow. The man who dodges that sweating



give us the opportunity to express our appreciation of these blessings to the Father of us all, who is the source of life and all the good it contains.

Surely no family has more cause for thankfulness than the Sanitarium family. Here are gathered a large number of people
(Continued on page three)

cold water trickling down your back; it makes you take a deep breath. Cold water applied to the abdomen makes the abdominal muscles contract, draws them in suddenly. If you put your feet into cold water, there is a sudden contraction of the abdominal muscles. The contraction of the external mus-
(Continued on page three)

gets the worst of it. There are many people nowadays who are doing their best to get somebody else to do the sweating for them. I think the average man looks forward to the time when he will not have to work hard as a delightful time, when he can just rest, and make a living by other people's sweating. Almost every man is striving to get a posi-

tion where he can get a living without working hard, without sweating, and without using his muscles. There is a growing idea in the world that it is somehow a little beneath the dignity of royal manhood to use one's muscles, to till the soil, to dig, to actually work for a living. I have heard those who speak of other people with disdain because they have to work for a living.

He is an Idler.

But the man who is simply living idly on the interest of his money is not contributing anything to the improvement of the world. It is not a desirable position to be in. But I have no intention of going into sociology to-night. I do not very often give expression to my feelings on these matters, but, as a matter of fact, while it is manly and in every way honorable and profitable to toil for our bread and the other necessities of life, we have created such an enormous number of artificial necessities that we have to struggle tremendously for things that are of no use, but are really a damage to us. And it is the mad rush for these gratifications that is wearing out the people of this generation.

Just see, for instance, what the Western farmer does. He has eighty acres of corn, perhaps. He raises one hundred bushels to the acre, if he has a very good crop. He will raise, then, 8,000 bushels of corn. That 8,000 bushels of corn would be enough to feed a family of five for a century and a half. But the farmer

Feeds it to a Lot of Hogs.

They contaminate that corn, they defile it, and wallow it in the mire and filth of their pens. And the man and his neighbors eat those hogs; but the hogs that he fattened on the corn that he has raised on his farm would not support his family of five more than a dozen years at the most. That is one way in which we waste our substance. That is the way we throw away our wealth. The American hog is probably wasting more than all the other extravagances of the whole American people. The American hog is the greatest source of poverty that I know of at the present time. He is eating up our wealth. We raise every year corn enough to feed every hungry person on the face of the earth. Nobody need to go hungry if American corn could all be eaten by human beings.

People imagine that the corn, being eaten by the hog, is somehow enhanced in value, that the nutriment is increased and concentrated. But that is the greatest possible mistake. The farmer has fed a hog, perhaps, five or six pounds of corn, and got only one pound of hog in place of the six pounds of corn, and that pound of hog is not worth half as much as one pound of corn for nutriment.

It Will Not Sustain Life.

The amount of heat it would produce would not be half as much as would be produced by one pound of corn; so we have only one-tenth or one-twelfth as much in nutriment left as we had to start with after it has been filtered through the hog. The hog has simply wasted it, squandered it, thrown it away.

Besides the hog, we must have a lot of expensive things to eat that do not do us any good. We must have beefsteak that costs twenty to forty cents a pound. I met a

man some time ago who told me he had reached the point where he could not think of eating anything in the shape of meat that cost less than a dollar a pound. Now this gentleman had also gotten himself down to the point where he was a complete wreck. He could not digest anything, had no appetite. A very providential thing happened to him then.

His Partner Turned Out to be a Bascal;

he stole all his money, ran away, and the man had to go to work. He had to look around to find a job, and he fortunately had learned surveying when he was in school, so he left his New York home, went out to Colorado, got a job assisting a surveyor, and gradually he became able to do the work himself; that took him outdoors, gave him exercise, and his appetite came back, his digestion returned, and he was really a resurrected man. It was a good fortune for that man that he lost everything and had to go to work.

Lack of exercise is unquestionably the original cause of the breakdown of most business men. During the thirty-five years I have been in this institution I have seen at least fifty thousand business men, and have heard thousands of them complain of overwork. The most of them have said, "I think I have been working too hard; I am overworked." As a matter of fact,

They Have Not Had Enough Work.

The real trouble is that they have not had to work hard enough. I have not met in my lifetime more than three or four men who I thought really had more work to do than a good able-bodied man ought to do. Work is not the thing that kills men. It is lack of work. It is other things besides work.

It is possible for men to be damaged by lack of sleep. It is possible for men to be damaged by worrying; but work is physiologic; work is wholesome; and if a man is working at the proper kind of work, when he gets so tired that he ought not to work any more, he goes to sleep; he is compelled to go to sleep. Nature turns off the gas and compels that man to go to sleep. When he wakes up he is rested. Rest will cure all the damage that work does. It will not always cure all the damage that worry does, but it will cure all the damage work does. Rest is a complete panacea; it is an absolute cure for work; so work is not the thing that makes people sick; it is lack of work.

Weariness is Physiological;

it is necessary to get tired. If one does not get tired, he has not earned the right to rest. You know Paul said that if a man will not work, neither shall he eat. Lack of work takes his appetite away, or if it does not, it is all the worse for him; it is simply a short cut to the graveyard if he keeps on eating and does not work; but nature says also, He that will not work shall not sleep. And there is a very good reason for that.

I consider exercise one of the things that is absolutely essential to help the chronic invalid to get well, especially the average over-civilized person. A gentleman came here and brought his wife. I was looking over her case, and he said, "Doctor, you will see what is the matter with my wife; you will see

right away." I said, "What do you think is the trouble?" "Why, she is a product of modern civilization." His wife was civilized, nearly to death.

Really, Civilization is a Pathological Condition.

We have grafted on such a lot of abnormal, artificial, unnatural things that it is not a normal state. I think a mild return to savagery would do us a world of good. And the average person knows that. The business man looks forward with supreme delight to the summer vacation when he is going to get a month in which he can "take to the woods." The thing that does him good is returning to nature, getting off in the woods, being compelled to do things for himself; he has to gather and chop the wood, and light the fire himself; sometimes he has to row his own boat, and he has to climb rocks and trees, cook his own food and wash his dishes, and for a month or so he lives a comparatively normal life, and he comes back rejuvenated, recreated. He has gotten near enough to nature so that nature could do something for him, and he has been undergoing a reconstructive process, and when he comes back he feels like another man, and he looks like another man. There is a glow in his cheek, a sparkle in his eyes; when he meets his friends they say, "Why, where have you been? What have you been doing? You look surprisingly well." What has helped him? He has not taken any medicine; he has just been returning to a natural state.

I saw

In a Bank a Whole Row of Cages,

and men shut up in them like monkeys, and I felt awfully sorry for them. Some of them sat there all day long, just counting bills. Getting nothing out of life at all, and it looked to me like the stupidest sort of occupation a man could have, to simply be shuffling dollar bills—an artificial situation, and a man giving his life to that is simply working himself down into the grave as fast as he can. The men in those cages look prematurely old; their faces are sallow, and they get bald early because that is one of the signs of senility; they have bad breath, and a coated tongue. If they are over forty years old, they have a blood-pressure that is going up.

The ordinary business man, or civilized man, suffers continually, and I may say almost irremediably, in consequence of his inactive life. Man was made to be an active animal. Unquestionably, in his normal condition, he is one of the fleetest animals that lives. Man has a most marvelous mechanism; his body is marvelously constructed. He ought to live the longest of any animal on the face of the earth, ought to be the toughest, hardiest, fleetest, as well as the most sagacious animal. But instead of that, he has degenerated until he has become a poor, weakened specimen of what a man ought to be. It is because of his unnatural mode of life. No animal can long survive in a condition that is unnatural for him. A man living in the house is living unnaturally. The primitive man was born outdoors, in the forest, and the forest is the place where a man can

grow up into the most vigorous and abundant strenuous life.

We have not learned to adapt our civilization to the natural conditions of life, in a manner to avoid serious evils, but rather, we invite these evils. We must learn how to obviate these evils; if we do not, we shall go down to extinction. That is why I am talking here to-night. I want to help you to find out how to live in a civilized community, at the same time enjoying the real advantages that the natural simple life confers.

The Civilized Man Has Become Tame;

and in doing so he has become feeble and puny because he has lost the advantages of the natural life. The business man, who is shut up in his office day after day and month after month, goes out and takes a little exercise, and there pours out upon the skin a fetid stream of filth that is extracted from his blood, and how it smells! You all know about it, and some of you know from experience. You wonder why it is your perspiration has such an odor. My friends, that unpleasant odor is a specimen of yourself; it is simply what is inside coming out. You can never get rid of it by putting perfumery on your handkerchief, or using cosmetics of any sort. The only way you can get rid of that is to have clean blood and clean tissues, and then nobody will have any occasion to complain about the bad breath and unpleasant odors.

You may do everything else you like for health,—eat right, sleep right, live temperately, never smoke, never drink, abjure tea, coffee, and everything that is unwholesome and unhealthy,—discard them all, and yet if you neglect to exercise, your body will become polluted; it will become a seething pool of impurities, because the body itself is a factory of poisons. And exercise is the means by which these poisons are eliminated from the system.

THANKSGIVING AT SANITARIUM

(Continued from page one)

whose health has failed, and who are here in earnest hope that this precious boon, good health, may be restored to them again. Nothing is more calculated to awaken gratitude than the recovery of health and strength to those who have lost it for a time. This is a joy that is constantly with us. Not only the patients themselves have reason for rejoicing; it is also a very great privilege to those whose business it is to minister to the sick and suffering people to see the bloom and activities of health coming back to those who have been low down in health.

The past year has been

Filled with Manifestations of Divine Goodness

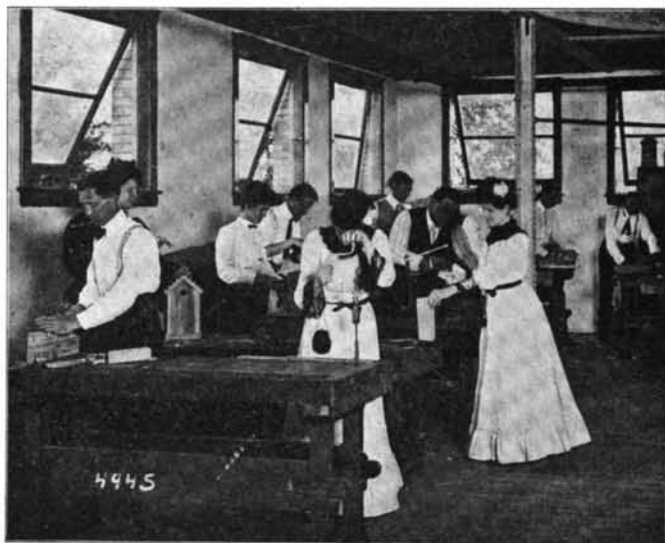
and care. Trials and troubles have arisen, there have been disappointments and failures and adversities, but these have not originated with the Author of mercies and blessings, and over them all there has constantly shone the beneficent goodness of God. The institution has been blest with a prosperous year, and has been enabled to minister to

more people than in any previous year, and with better results.

Quite a large number of our workers and guests attended service in the First Baptist church on the morning of Thursday, where union services were held. The Rev. E. G. Lewis, D. D., delivered a very eloquent discourse appropriate to the occasion. The Sanitarium provided for its patients and helpers a bountiful repast, as will be seen by the following menu:

Menu

Salpicon of Fruit	
Cream Chestnut Soup	Vegetable Soup
Celery	Olives
Nut Meat Pie	
Cranberry Frappé	
Mashed Potatoes	Olive Sauce
Browned Sweet Potatoes	
Baked Onions	Creamed Peas
Cinnamon Rolls	Graham Bread
White Bread	Bran Biscuit
Rice Biscuit	



SANITARIUM PATIENTS WORKING FOR HEALTH

Dairy Butter	Nut Butter
Sliced Tomatoes with Mayonnaise	
Cheese Salad	
Pineapple and Celery Sandwich	
Protose Mince Pie	Pumpkin Pie
Grapes	Apples
Almonds	Stuffed Figs
Caramel Cereal	

The best part of the program came in the evening, when a large number of guests and helpers assembled in the main parlors and gave expression to their thankfulness in songs and in the relation of personal experiences. Several individuals gave brief recitals of the special reasons they had for gratitude, and their testimonies were deeply appreciated by many others who could have spoken in the same terms of their own circumstances.

QUESTION BOX

(Continued from page one)

cles is accompanied by contraction of the internal muscles as well. The heart contracts,

and the lungs contract, the chest wall contracts, and the internal parts also contract. A prolonged cold application causes a spasmodic contraction of the internal parts, and so has the very opposite effect. A short hot application, of ten or fifteen seconds, has a relaxing effect, and is often beneficial in cases in which there is colitis and contraction of the intestine.

Q. I have a dull feeling in my head, and can not think or write as I used to do. What is the cause of it?

A. No doubt the cause is chronic toxemia. The brain is saturated with poisons that need to be eliminated. It may be your liver, kidneys, and thyroid gland are worn out by tea, coffee, tobacco, flesh eating,—by autointoxication. The poisons are accumulating in the blood, and the man is in a state of intoxication. Thousands of people are going about food-drunk as the result of the decomposition

of excessive quantities of food which they have eaten.

Q. Why do you recommend exercise after supper?

A. The exercises recommended after breakfast, after dinner, and after supper are gentle exercises and have for their purpose to encourage gastric activity and to help to pump the blood out of the liver, and to absorb the food from the intestines. Exercise, first of all, quickens respiration. When the chest is held up well and the diaphragm descends upon the stomach, it compresses the stomach, the liver, and these vital organs hard against the abdominal wall. The diaphragm gives the stomach a good hearty squeeze. And in that way it compresses the blood and the lymph out of it and makes room for the absorption of new fluids and for digesting the contents of the intestine.

Q. What effect, if any, does the electric bath have on the heart?

(Continued on page five)

The Battle Creek Idea

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A GREAT CURSE IS BEING REMOVED

No one not actually acquainted with the facts by personal observation can form any adequate conception of the enormity of the calamity that befell the Chinese nation when opium smoking was introduced there and forced upon them, willing or unwilling. The men fell victims to the soul- and body-destroying habit by countless thousands. And, anxious to profit by the degradation of their own people, as are many of our own fellow countrymen, the farmers of China fell to growing the poppy, and thus brought greater destruction and sorrow upon themselves.

By the use of the seductive drug the user was transported into the regions of ineffable bliss. In a half comatose state, he felt soothed and blest; beautiful clouds of fancy swept over his brain as he lingered at the pipe, and slept away his drowsy stupor of imaginary happiness. But gradually he became the victim of untold torture when out of the influence of his subtle captor and gladly hastened into the embrace of the insidious foe that was dragging him surely down to a terrible death.

A little over three years ago the Chinese government awoke to the dreadful situation the country was in and the sure and awful fate that awaited them and their country unless decisive steps were taken to stamp out the evil. The Chinese people were given ten years in which to sever their connection with the business in all its branches. At the end of that time the raising, manufacture, importation, or use of the drug is to be prohibited by a government that does not hesitate to enforce its behests with summary capital punishment.

We are told by eye-witnesses that the traffic is disappearing very much more rapidly than is required by the law. It was required that it should be gradually abated, one-tenth each year. But, instead of declining three-tenths, the business has gone down two-thirds already, and it seems that when the limit shall be reached, the work will have been done for some years. In provinces where the poppy

was most extensively cultivated, not a field of it can now be found. This is indeed good news, and we all feel to congratulate China on the way in which she is dealing with this formidable foe.

It is a pity that civilized America could not be aroused to grapple as vigorously with some of her giant evils. Opium is not the only stealthy, wily foe that steals away men's wits and souls; that undermines health and unfits for duty, and ends in disease and death. We have the dreadful drink traffic, that is as inimical to our best interests as opium ever was to China. Our men smoke tobacco to quiet their nerves and transport themselves off into some elysium of bliss. The wear and tear of the day, the nervous tension, the irritability and friction of life and business, are forgotten in the soothing effects of a cup of tea, backed up by a nip of whiskey and followed by a cigar. The realities of life are lost sight of in the soothing narcotics which men, and women, too, employ to smooth down the rough places of life, just as the Chinese drown their miseries in the opium pipe. It is on the same principle, and off the same piece, only we ought to know better, and not permit ourselves to be enslaved by these insidious forces that cling to us like leeches, sapping our life and strength when once we have given them a hold.

Would it not be well for us to emulate the "heathen Chinese," and crush some of the vipers that we have been nourishing in our bosoms for many years?

THANKSGIVING LICENSE

If the dispatches are correct in reporting Dr. Harvey W. Wiley, head of the government department of food chemistry, a man who has been doing much to correct the eating habits of the American people, he has betrayed a very human spot of weakness in the Thanksgiving message he sent to the American people through the Associated Press. He says: "I believe the eating public is entitled to one day in the year upon which the inner man shall be satisfied without the thought of Doctor Wiley and the microbe. This message I would send to the American people: Eat thy fill Thanksgiving day. The lid is off. But do not eat cold-storage turkey."

It is not to be supposed for a moment that the American people stand in need of such a message. They fully intended to do that very thing, in spite of Doctor Wiley and his microbes. But the spectacle of one who stands in high position as a reformer, whose office is to shield the public from the evil effects of their unbridled appetites giving full rein to unguided gust for one day, is, to say the least, disappointing.

One of the most unmanly things one can witness in this frail world is the sight of a man who is able to fight his way through any amount of adversity and opposition in the

world about him, surrendering himself to the demands of a gluttonous craving for unwholesome foods that he well knows are undermining his health, and thus tearing away the very foundations upon which he stands.

There is in such a gratification of an imperious appetite the secret of the downfall of the great majority of men and women who have made shipwreck of life. If gorging one's self is an evil on any ordinary day, is it not equally so on an extraordinary occasion? Shall we celebrate the goodness and bounty of God by surfeiting on substances that are destructive to health and happiness, and thus degrading the image of the God who made us in his own likeness? How much more appropriate it would be to admonish the American people to remember their failings, and keep their bodies and appetites under control, while enjoying the many good things that divine bounty has provided in thankfulness and moderation.

A man who for six months has been trying to repair the damage his past excesses have wrought could easily in one Thanksgiving dinner forfeit all the good he has gained, and at night be back in the ditch where he was when he began to reform. Then, why should intelligent Christian people demand any such beastly gratification as the privilege of letting themselves down from the dignity of true manhood and womanhood to the level of gluttons just for one day?

Thanks, Doctor Wiley; no occasion.

DOCTOR WILEY ON TEA AND COFFEE TOPERS

The following article is taken from the *Literary Digest* of November 19. It embodies portions of an article written by Doctor Wiley for the *Tea and Coffee Trade Journal*. Neither the writer of the article, nor surely the publishers of the paper, rank among the foes of tea and coffee, so the words of caution may safely be taken for all there is in them, and then some more:

A warning against the evils of tea and coffee looks odd in the pages of the *Tea and Coffee Trade Journal*; yet such an article from the pen of the famous Dr. Harvey W. Wiley, Chief of the Bureau of Chemistry of the United States Department of Agriculture, appears in that paper (New York, October). Doctor Wiley believes it to be the duty of the trade to see that tea and coffee are not used to excess; if not, he says, prohibitionists may tackle these drinks next, after downing old King Alcohol. He writes:

"There are a great many persons who are keenly susceptible to the influence of some of the soluble substances contained in tea and coffee. Most active of these substances by far is the alkaloid caffeine. It has a peculiar effect in general and in many cases has special effects.

"Many parents forbid the use of tea and coffee to their children, and I think this is a wise precaution. I do not think there is any danger of interfering with the health or nutrition of the child by abstinence from drinks of this kind; on the other hand, it appears to me there is danger of permitting the child to form a habit, because coffee- and tea-drinking are to a certain extent habits, and I think caffeine is recognized as one of the habit-forming drugs. In regard to children, at

least, therefore, the word 'prohibition' is perhaps a better one to use than 'temperance.'

"Coffee and tea have become such universal beverages in the last three hundred years as to present a problem which must be faced in some way. The problem is not so acute as in the case of alcoholic beverages, which are not natural products."

A grown person, Doctor Wiley admits, has a right to choose his own food, but he advises caution in the use of tea and coffee. The moment a man feels that he is becoming a slave to either he should call a halt. If giving up tea or coffee produces malaise, headache, incapacity for work, and a general disturbance of the health, the victim may know that he has gone too far. We read further:

"It is quite impossible to prescribe how much tea and coffee each individual should drink. This is a matter which is left, and should be left, entirely to his own choice. The use of beverages of this kind is not inhibited by the food and drugs laws, even should they prove to be harmful, because that act applies only to added substances in so far as injurious and deleterious bodies are concerned."

"From a commercial point of view, it is highly important that tea and coffee should be so used as to work no injury. If, on the other hand, they are abused so as to threaten the health of a community, there is no valid reason why the community should not prohibit their introduction and sale, since the exercise of a police power is wholly within its jurisdiction."

"With the advance of civilization the individual tends to place, to a greater extent than before, his welfare and care for his welfare in the hands of the State. This is a natural condition, because the individual alone is not able to cope with those forces which threaten his welfare. Any great abuse of beverages of this kind will doubtless result in prohibitory action, just as has been the case with alcohol."

"The student of the alcohol problem can not fail to realize that prohibition has arisen because regulation was not effective. The great abuses in the consumption of alcoholic beverages have rendered it almost necessary that the State should arise in its power and might, first to control, and, if that is not effective, to prohibit the use of such dangerous substances. Let us hope that this will not be the case with such delightful beverages as coffee and tea. If experience, however, should prove that they can not be used in moderation without entailing upon the community a threat of injury to health, then the other condition will arise in regard to their prohibition."

QUESTION BOX

(Continued from page three)

A. The electric light bath is at first exciting to the heart, and afterward depressing. A very short hot bath is exciting to the heart, and a long hot bath is always depressing to the heart. So when a person has a weak heart and is going to take a hot bath, he should have an ice bag over the heart, or a cold compress over it, and that will prevent any possible evil.

Q. Should a person suffering from colitis eat cane sugar?

A. He would better not. Cane sugar is irritating to the stomach and intestine, and a

person suffering from colitis probably has less power to digest cane sugar than one who has a healthy intestine. Cane sugar is digested with difficulty in the intestine. Cane sugar is a natural diet for cows. It is a grass sugar, found in roots and in stems. It is not found in fruits to any extent. It is found in the date, but that seems to be a sort of mistake. It is because the date which has the cane sugar in it is an imperfect date; it lacks the enzyme which is present in most dates and which converts the cane sugar into fruit sugar. There is cane sugar in the sap of the cherry tree, but there is no cane sugar in the cherry, because as the sap comes to the cherry through the stem, it meets a digestive agent, a so-called enzyme or ferment, which converts the cane sugar into fruit sugar; and this is generally true of all fruits. But there

the whole intestine is infected it takes a long time to accomplish that.

Q. What is the condition of the stomach which has shown a deficiency of acid for years?

A. That stomach is a worn-out stomach. The glands have ceased to produce the natural acid. It may be that it can be restored to its normal condition again, and it may be that the degeneration taking place has been such that complete recovery is not possible. The case will have to be investigated carefully to find out how this will be.

Q. Will any harm result from the continued and permanent use of acid and pepsin



CHINESE CELEBRATING THE ABOLITION OF OPIUM SMOKING

are a few dates in which this seems to be accidentally omitted; so the cane sugar passes into and is stored up in the date, and that is why we find in this exceptional case cane sugar in the fruit. Fruit sugar requires no digestion. It is ready for absorption immediately; and that is why one feels so refreshed when he takes fruit juices of any sort. The juice of an orange, or a glass of apple-juice or grape-juice is exceedingly refreshing, because the sugar is absorbed at once and is a support to the energies of the body and is utilized immediately; but this is not true of cane sugar.

Q. How can one treat colitis at his own home?

A. Colitis is not an easy disease to deal with. It arises from an infected condition of the intestine. Sometimes it involves the whole length of the alimentary canal. In such a case it is not an easy thing to effect a cure. The ground that has been surrendered to these germs has to be conquered back again little by little, inch by inch, and where

when the stomach chart shows absence of both?

A. Yes, harm results, because after a while the stomach would lose its power altogether for making acid and pepsin. The stomach soon comes to depend upon this artificial help and refuses to work at all.

Q. Are cucumbers eaten without vinegar or pepper deleterious?

A. No, the cucumber is as wholesome as cabbage, lettuce, or any other fresh vegetable. It is only necessary to chew the cucumber well, to avoid the use of vinegar and pepper, and too much salt. Lemon-juice should be used in place of vinegar. If one can not get lemons always, then a good plan is to use the juice of unripe grapes expressed and canned. That is a very good acid.

Q. Why should vegetable fiber or fruit skins be rejected? Do they not give bulk?

A. It depends on your stomach. If your stomach is very slow or a sacculated stomach,

then those things are likely to get down into the pouch of the gastric cavity and remain there.

Q. What is malt sugar made from?

A. Malt sugar is made from rice or corn. It is digested starch, and it is in every way preferable to cane sugar. It is not quite so sweet as cane sugar, but it can be eaten in any quantity without any harm. It is fattening and aids digestion. People who have slow digestion can eat malt sugar to advantage.

Q. What does a craving for salt indicate?

A. It does not indicate necessarily that one needs salt. It may be simply the habit of eating salt. I have some fine deer in my park that have never eaten salt. I have even offered them salt and they would not eat it. They have been brought up properly, you see. The demand for salt is purely a cultivated taste. It is not really a necessity.

Q. In a case of facial paralysis, what is the best treatment?

A. Electrical applications, hot and cold applications, and massage are the best means of relief.

Q. Is it a fact that a phrenologist can tell the mental characteristics of a person by the measurements of his head?

A. I am inclined to think the successful phrenologist judges mostly by intuition, that he does not decide so much by measurements of the head as he does by his natural acumen. There are some people who are really able to form a very good intuitive judgment of character. But I am quite certain the bumps do not indicate very much. As a matter of fact, the phrenologist locates the intellectual faculties all over the head, whereas modern physiology has shown very clearly that the intellectual faculties are located entirely in the front part of the head and the brain organs in the back of the head are purely sense organs and have nothing at all to do with intellectual operations.

Q. How do pine nuts grow?

A. They grow in the gigantic cones of the nut pine tree, in the foothills of the Rockies in California and the Coast Range; and they also grow in the foothills of the Alps. The pine nuts we use in this country come mostly from Spain. They are gathered in California and Arizona, by the Indians, some tribes of which live almost entirely upon pine nuts, but there is no great trade in them in this country.

Q. Is it true that wholesome foods, when improperly combined, sometimes produce indigestible combinations?

A. I do not know of any chemical change that can be produced in that way which would produce chemical combinations.

Q. Can medicine help Bright's disease?

A. Not at all. The person's life may sometimes be prolonged by the use of some medicine which will stimulate the kidney when water has accumulated about the heart or some other place, and so carry off the surplus liquid; but that does not effect a cure; it is only atemporary lift for the time being.

The picture on the first page is a thing of beauty, full of suggestion, full of good sense, good health, and good morals. The bounties there represented are the things that make for happiness and good living. To partake of them is a joy forever, and brings peace of mind and real contentment. There are plenty of such blessings produced each year by divine bounty to feed the entire race, and every member of it.

GIVE THANKS

Oh, hushed as the silence that follows praise
is the mystic peace of the autumn haze,
That, soft and mellow, and touched with gold,
Wraps hill and vale in its lustrous fold,
Here and there by the sunshine kissed
To violet, amber and amethyst;
Or blown by the breath of the breeze away
From the meadows shorn and the woodlands
gray.

We've heard the last of wild bird's call,
We've watched the loose leaves flutter and fall;

There are empty nests on the naked bough,
There's a dream of snow on the mountain's brow;

The summer's work is over and done,
And the brown fields sleep in the waning sun;
Fruit of the harvest is gathered in,
And grain is beaped in both barn and bin.

And up from the homes that are richly blest,
Dowered with abundance and crowned with rest,

And up from hearts that in highest mood
The lowliest bow in their gratitude,
Anthems arise to the Giver of all,
Whose love beholds if a sparrow fall,
Whose matchless grace on the earth hath
smiled,

Like a parent's look on a cradled child.
—Selected.

ARRIVALS

THE list of guests who registered at the Battle Creek Sanitarium for the week ending November 20 is as follows: Geo. J. Alexander, Chicago; E. Storhan, Neb.; C. M. Webb, O.; Miss M. L. Lewis, N. Y.; A. S. Buckingham, O.; G. E. Smith, Ga.; Frank Lopez, Mich.; Lulu E. Carpenter, Ind.; M. O. Jordan, Detroit; M. A. Ellison, B. C.; Mrs. Max Lowenthal, New York City; Mrs. D. J. Loomans, Wis.; J. Burns, Chicago; Jacob Lobensky and Joseph Lobensky, Mich.; D. Karle and John D. Karle, Detroit; B. F. Thomas and wife, O.; Miss Linnie Blaik mess and A. G. Beasley, Ind.; Louis Blaik and Mrs. Blaik, Wis.; W. M. Ropp, Colo.; H. C. Butler, Mich.; Glenn Butler, Detroit; David Chapman, Mich.; Miss Mabel Lossing, India; Miss Mary Sbanahan, Chicago; G. T. Wood, Ore.; Mr. and Mrs. O. L. Flacons and Mrs. Edw. Fischer, Pittsburgh; Mr. and Mrs. J. J. Easton and child, Porto Rico; Geo. Hutchinson, Mont.; Mrs. A. T. Depue, Ill.; Mrs. M. A. Wing, Mo.; Chas. Se Dessie, W. Va.; Alfred Freund, Mo.; Mrs. A. B. Holbert and Mrs. Gertrude Holbert, Ia.; Henry E. Chase, Mich.; John Hoffe, Pa.; M. M. Ostrander, Mich.; A. P. Cole, Ind.; A. T. Depue, Ill.; B. H. Niebel, Pa.; Mrs. B. Augkendale and Mrs. W. H. Barber, Wis.; W. W. Lohr, Chicago; C. I. Seagraves and Miss Bertha Dorste, Ind.; J. H. Grace, Chicago; Mattie Palmer, O.; Rev. P. T. Hale, D. D., Ky.; W. B. Jacka and wife, Mich.; Jessie G. Terrie, Africa; Mrs. Hastings, Detroit; Mrs. St. Bernard, Mich.; S. W. Paw, W. Va.; Mrs. Wm. N. Lee and Mrs. C. W. Whedon, N. Y.; Mrs. Francis Coplin, Toledo; Miss Adelaide Case and Mr. and Mrs. J. P. Sidwell, Chicago; J. C. Floyd, O.; Bertha M. Colter, Pa.; Edw. W. Seifel, W. Va.; John

THE MEDICAL MISSIONARY

An Illustrated Monthly Magazine Devoted to the Interests of Home and Foreign Medical Missions

Contributions direct from all parts of the field represent the work of medical missions in various parts of the world as carried on by all denominations.

A Medical Department is conducted by J. H. Kellogg, M. D., Superintendent of the Battle Creek Sanitarium.

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L. J. BUSH, Pass'r Agt.

H. Masten, Mich.; H. C. Curtis, Ia.; J. H. Knapp and wife, Ind.; F. Shaldheiss and A. B. Read, Mich.; A. C. Showalter and A. H. Showalter, Buffalo; Henrietta Weber and Anne Irene Larkin, Chicago; Mrs. N. G. McPhu and child, Mich.; Mrs. Walter Brown, Ind.; J. M. Ainsworth, Miss Lillie Doller and Miss D. Doller, Ohio; T. A. Hoverstad, N. Dak.; J. C. Hoffstetter, Pa.; Mrs. G. D. Strickland, City; Miss Mary Baily and Miss Mertie Emery, Mich.; C. E. Bates, Chicago; Charles W. Brown, Pittsburg; C. Irwin, Ky.; L. I. Foster and wife, O.; O. B. Potter, Buffalo; H. A. Bunden, Mich.; Jno. Jordan, Detroit; J. M. Jack and O. L. Jack, Pa.; A. H. Viner, Mich.; Mr. and Mrs. J. J. Newberry, New York City; M. E. Pearce and wife, Minn.; W. A. Alexander and wife, Idaho; Dr. J. M. Head, Texas; D. Karle and Mrs. J. W. Thomas, Detroit; S. W. Bradford, Pittsburg; W. G. Peacock, Indianapolis; Mrs. W. H. Honey, Ill.

ing with him his brother, Mr. O. L. Jack. They are both prominent oil producers, who plan to spend a few weeks at the Sanitarium.

Dr. Leslie Frazer reports from Seattle, where she has been visiting Mr. and Mrs. Ritchie, long-time friends of the Sanitarium, and says that the baby Helen, born in the Sanitarium some little time ago, is strong and developing beautifully.

Miss Cleveland, who was here all summer, has continued to improve beyond all expectations since going home, where she has continued the treatments under a Sanitarium nurse. Miss Cleveland is a cousin of the late President Cleveland and is a warm friend of the Sanitarium.

The Misses Powell and Grover, two of our graduate nurses, are leaving to take up hos-

pital work in Salt Lake City. Another graduate nurse from the same place, Mrs. Lambert, is soon to leave for her home. She expresses herself as anxious to be there and make use of the simple and effective treatments with which she has become familiar in the Sanitarium.

Some improvements and additions are being made to the gymnasium. Curtains are to be used, making separate divisions for men and women. It will thus be possible to hold classes for each at the same time. Carpets are to be provided for floor exercises for medical gymnastics. A new set of flying rings and additional stall bars are also to be added.

Among the new patients, we notice Mr. Chas. Irwin, of Frankfort, Ky., a furniture manufacturer; Rev. P. T. Hale, of Louis-

News and Personals

Dr. Clara V. Radabaugh has returned from her vacation, which has been spent with friends at her home in Ohio.

Mr. B. F. Thomas, of Lima, Ohio, a well-known merchant of that city and a patient of thirteen years ago, has returned with his wife to spend a few weeks at the Sanitarium.

Mr. J. M. Jack, of Bradford, Pa., has returned from a short visit to his home, bring-

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Battle Creek, Mich.

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The Sanitarium School of Health and Household Economics,

LENNA F. COOPER, Director,
Battle Creek, Michigan.

ville, professor in the Evangelical and Southern Baptist Theological Seminary, and who plans to spend a few weeks with us; also Mr. J. J. Baumann, a prominent real estate man of Oklahoma City; Mr. C. S. SeDessie, of Charleston, W. Va., who is connected with the post-office department.

The entertainment given in the gymnasium on Saturday evening under the auspices of the Chicago Concert Company consisted of carefully prepared and well-rendered selections, which elicited several *encores* from the assembled audience. The Saturday evening programs are usually full of life and interest and deserve the patronage of those who appreciate wholesome and uplifting entertainment.

Mr. and Mrs. J. J. Newberry, of New York City, former patients of the Sanitarium, have returned for a course of treatment. Mr. Newberry is buyer for a firm of large business interests in New York City. He was a former patient of the Nashville Sanitarium. Mr. Newberry and his wife have kept in touch with Sanitarium methods for many years, and are well known to many of the older employees of the Sanitarium, who will be glad to welcome them.

We have had with us recently Dr. J. F. Davidson, Supreme Medical Examiner of the Tribe of Ben Hur. The Doctor was accompanied by his wife, and her mother, Mrs. Elizabeth Gerrard. Mr. Gerrard and Mr. Davidson were the originators of the Tribe of Ben Hur, which has become one of the first social and benevolent societies in this country. Doctor Davidson returned to Crawfordville, Indiana, for a few days, after establishing the ladies, and on his second visit presented Doctor Hambleton of the gastric laboratory with a gold watch with the insignia of the order engraved upon it, with the compliments of the Supreme Council.

The Social Hour on Wednesday last was made very enjoyable by the good stories told around the fire by several of the Sanitarium guests and friends, among whom were Mr. Lore, Mr. Simmons, and Dr. Henry C. Morrison. Miss Florence Walker gave an excellent reading from Mark Twain, "How Tom whitewashed the fence." The violin solo by Miss Genevieve Edwards was much appreciated, the accompaniment being played by her sister. The piano selections of Master John D. Karle, of Detroit, showed unusual ability and contributed much to the enjoyable hour. These opportunities for social intercourse seem to be greatly welcomed by the guests.

Dr. Henry Clay Morrison preached in the Sanitarium chapel on Sabbath morning, and at the close of the sermon he made a very earnest statement of his appreciation of the principles which he had observed carried out in the Sanitarium. He said that he was a man of considerable travel and experience and had never seen such uniform adherence to sound principles as in the Sanitarium, and that he had learned to admire the great institution in Battle Creek for its noble work, and particularly for what it has done and is doing for him.

At the Sunshine Hour in the parlor, Doctor Morrison has made himself very dear to the Sanitarium family by his frequent spiritual and inspiring talks and fireside stories, and his friends will be glad to know that he has been persuaded to extend his visit here for another week.

Mr. C. C. Fuller and wife, of South Bend, Ind., are stopping at the Sanitarium for a period, for the second time, they having spent some weeks here last winter. Mr. Fuller is a civil engineer, and some twelve years ago accepted a call to go to Rhodesia to engage in industrial educational work for the natives under the American Board for Foreign Missions. After spending several years there in this work he had the satisfaction of witnessing very marked results in teaching the savages the arts of civilization. Nothing produces greater practical good for these people than to show them how to improve the conditions under which they exist. Mr. Fuller related many of his experiences to a Sanitarium audience in a most interesting address, and has presented the museum with many souvenirs of heathen life in the shape of ordinary articles made and used by them. The assegai, or spear; the battle axe, the snuff-box, water bottle, and wooden pillow, are among the interesting curios he brought to us.

On Thursday afternoon the missionary museum was the scene of a very unique gathering. The resident missionaries of the Sanitarium were invited to spend a social hour together, during which afternoon tea was served by Miss Aldrich, at little tables which accommodated four guests. The opportunity for social intercourse was much appreciated and the African bush tea and delicate refreshments contributed much to the enjoyment of the occasion. Perhaps in no other

place on this continent could such a unique gathering be possible, as was here held. Among those present were: Rev. and Mrs. K. E. Pease, Singapore; Mrs. Joseph Clark, of Africa; Mr. Leavitt, of China; Rev. and Mrs. Alvin C. Cober, of Porto Rico; Miss Glenny, of Turkey; Miss Anderson and Mrs. J. W. Bashford, of China; Miss Nellie A. Cole, of Turkey; Miss Eva Rollman, of Japan; Rev. and Mrs. Richardson, of Burma; Rev. and Mrs. Neipp, Africa; Miss Martin, of China; Rev. and Mrs. Leo, of Porto Rico; Mrs. W. A. Mansell, of India; Mr. and Mrs. C. C. Fuller, of Africa; Miss Jessie Marker, of Korea; Miss Zillah A. Bunn, Burma; Miss Mabel Lossing, of India; Mrs. Canright, of China; Mrs. Terrill, of Africa; Dr. Henry C. Morrison, of Kentucky, who has endeared himself to so many missionaries in his recent trip around the world; Mr. Taylor, one of the field secretaries of the Presbyterian Layman Missionary Movement, and the Rev. Dr. Niebel, secretary of the United Evangelical Missionary Board, who was visiting his daughter, a patient in the Sanitarium.

A welcome was extended to the guests, and Mrs. Bashford, with her usual grace of manner, responded for the missionaries in a few well chosen words, voicing their appreciation of the help which they are receiving in restored health.

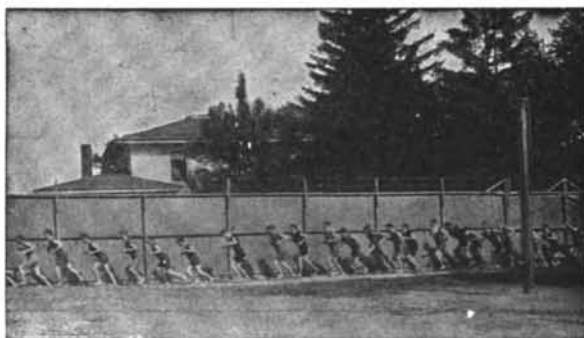
Doctor Kellogg gave a cordial and hearty welcome to the guests, saying how glad he was to see them there and to know that they were receiving help and benefit from their stay in the Sanitarium. He gave a very interesting account of his trip among the Indians in Arizona, in which he illustrated the value of the simple life, and urged the missionaries to try to spread the principles of the Sanitarium in their different fields of labor. The rest of the afternoon was occupied by intercourse, and judging from the frequent laughter, many pleasant reminiscences were recalled.

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THE BATTLE CREEK IDEA



Vol. III No. 52

BATTLE CREEK, MICH., DECEMBER 2, 1910

Price 2 Cents

The Cause of Insomnia

Given by Dr. W. H. Riley in a Lecture to Patients and Guests in the Sanitarium Parlor

It is important for us to understand that insomnia is not a disease, that it is simply a symptom; but it is so troublesome a symptom that often it rises to the dignity and importance of a disease, and sometimes we are tempted to treat it as such. It is a symptom that

THE SANITARIUM SYSTEM OR BATTLE CREEK IDEA

What is Meant by These Terms, and What They Embrace—An Outline of Battle Creek Sanitarium Principles

We find ourselves under the necessity of occasionally explaining our position and the terms we are wont to use. The phrases, "Battle Creek Idea," and "Sanitarium System" refer to the system upon which the famous institution works in treating the sick,—

PSYCHOTHERAPEUTICS OR MIND-CURE

Dr. J. H. Kellogg Gives in a Lecture the Results of His Investigations and Observations

I do not think anybody at the present time exactly understands what are the sound and correct principles which relate to the branch of healing known as psychotherapeutics, if indeed it can be called therapeutics. Professor Du Bois has written a work which is



WINTER FLOWERS AND VEGETABLES AT THE SANITARIUM

present in a great many different diseases, it indicates a condition in which the individual suffers from want of sleep. Insomnia applies to all of the different disturbances in sleep—either no sleep at all, insufficient sleep, or restless sleep.

The causes of insomnia are many. We may say at the outset that when one has insomnia he is suffering in some way from illness. One who enjoys good health sleeps

(Continued on page five)

the philosophy and principles which underlie that practice.

Some misinformed or prejudiced people choose to regard the enterprise as the result of a fancy, a whim, or more familiarly, a fad. No great pains have ever been taken on the part of the institution to put that impression out of commission; it has been thought to be the best and wisest course to quietly pursue the way mapped out, to fol-

(Continued on page three)

perhaps the most reliable of any that has appeared on the subject.

Many experiments are going on at the present time. There is the Christian Science method, which is very widespread and is, on the whole, a very successful method of psychotherapeutics. There is hypnotism, which is frankly called hypnotism, and which by certain operators has been found to be really quite successful. I studied hypnotism with Professor Charcot some twenty years ago in

Paris, and I became convinced it was not a good thing. I became satisfied that when a person surrenders his will to another, and voluntarily places himself, as he supposes, under the control of another person's will, he is doing a thing that is not safe or wholesome for him to do. What we need is to have our wills strengthened, and not weakened. I found that Professor Charcot was most successful in his application of suggestion and hypnotism with weak-minded and hysterical girls and women. When the doctor pointed his finger, off they would go into a hypnotic state, and when the doctor would clap his hands, out they would come; and they did, evidently, whatever they thought the doctor expected of them.

I think there is

A Great Deal of Humbug

about psychotherapeutics. I have never seen any organic disease cured by suggestive therapeutics. I have never seen a dislocated joint put back into place; I have never seen a fractured bone healed. I have never seen a cancer removed nor a germ killed by psychotherapeutics, and I do not think any one ever will see any of those things done. I have never seen a person who was suffering from autointoxication cured by suggestive therapeutics, or by the Emmanuel method, or any other method of that sort.

I visited Boston some two or three years ago to make a little study of the Emmanuel method. I had read a great deal about it, and thought at first it would be the right thing for us to have as an adjunct here at the Sanitarium, because we have some people who have the blues, whose minds are sick, and they might be helped by suggestive therapeutics. So we contemplated selecting an expert in that method. I tried to find a doctor, but could not find one, but I finally found a clergyman who we thought would be just fit, and we concluded to send him to Boston to be trained in the Emmanuel method, so called.

But I Made an Exploratory Visit

myself first. I happened to be in Boston on an evening when the meeting at the church where this method is carried on was regularly held; so I went to the meeting. There was a large roomful of people, but as I looked over the audience, I noticed that there were very few men there; so I stayed at the door to take a sort of census, and I found there was about one man to thirty women in the audience.

Soon I noticed quite a proportion of the audience were going upstairs, so I fell into line and marched up with the rest. I found a large room, filled with ladies (there were but two or three gentlemen there besides myself), and pretty soon they began passing around sandwiches, cake, ice cream, chocolate, candies, etc., and the people helped themselves, and seemed to be very happy. Soon a couple of men came out who I learned were Doctor Worcester and his associate, and planted themselves, each about one-quarter the distance from opposite ends of the hall, and each one was immediately surrounded with a circle of people, and one by one these ladies took hold of the doctor's hand, looking up confidently into his face, while the doctors whispered to them words

of comfort and consolation, and then they passed on and others came up until quite a large proportion of the audience had thus communicated with the ministers.

As I observed this proceeding,

I Began to Understand

and the real functions of the Emmanuel movement began to dawn upon me. I really had not appreciated it before. I thought of references in the Bible to "nursing fathers" and "nursing mothers" in Israel. I never quite understood that before, but I discovered now; here were the nursing fathers, and Boston was a place where they were very much needed. The audience seemed to be made up mostly of disconsolate people who needed comforting and coddling, which perhaps they did not get any opportunity elsewhere to receive.

I entered into conversation with a young man I found there, a trained nurse. I asked him if he was satisfied that substantial cures were being made.

"O yes, indeed."

"Well, now," I said, "suppose that I were suffering from insomnia, and I should come to you for treatment, do you think the doctors here could put me to sleep?"

"O, yes, yes, we always succeed with insomnia."

"Well, how would you do it?"

"We would have you sit down and close your eyes, ask you to empty your brain of any unpleasant thoughts, and to try to compose yourself, to be calm and quiet; then we would say pretty soon, 'Well, you are getting sleepy, you are going to sleep; yes, you are already beginning to look sleepy, you are really looking drowsy; sleep is creeping over you; pretty soon you will be fast asleep. There, you are going, just going; there you are— you are fast asleep, sleep on.'"

I said, "Suppose just about that time I should open my eyes, what would that indicate?"

"It would indicate that we didn't succeed this time; we would have to try again."

I said, "It would indicate more than that, —it would indicate you had been telling me an untruth, because you had been telling me I was looking sleepy when I was not sleepy; you had been telling me that I was going to sleep when I was not going to sleep."

"Well," he said, "of course, we never tell a man he is going to sleep unless we feel pretty sure it is going to work. We can almost always tell."

I said, "Suppose a person suffers from insomnia because his body is poisoned, —he is bilious with poisons being absorbed from his alimentary canal."

"Oh, yes, autointoxication, —O, well, if he had autointoxication, of course, we would have to cure that first, before we could cure the insomnia."

"Well," I said, "can you not cure autointoxication by this psychic method?"

"Well, no, of course, that is due to germs; we have to get the germs out of the body first, have to remove the poisons; then we can put the man to sleep."

"Well," I said, "if you get the poisons out of the blood, the man will go to sleep anyhow. It doesn't require any psychotherapy,

because the poisons are the thing that are generally in the way, I suppose."

"O, no, no," he said; "that is not altogether the case, by any means."

"Well, suppose," I said, "the bowels are very inactive, and that causes insomnia, could you help that?"

"O, yes, yes. We have excellent success with that sort of trouble."

"Doctor Worcester had a patient whose bowels had not moved naturally for several years. He suggested that her bowels should move three times a day. They moved so much that she had to come back to have it stopped."

I confess I do not have very much faith in

Methods Which Ignore the Causes

of things. If a person is suffering from pain because a pin is sticking into him somewhere, you would not expect he was going to be relieved from that pain thoroughly and permanently by any other means than by the withdrawal of the pin. Suppose it is the colon bacillus, or some other poison-forming germ that is growing in the intestine and irritating the nerves, —suppose it is some more subtle cause; it is just as real, and it must be removed just as really as the pin must be removed.

Of course, Mrs. Eddy's view is that there is no such thing as a pin, so it is impossible for a child to suffer from a prick, because the pin does not exist.

Mrs. Eddy Actually Says,

"Why, you need not suffer from toothache, because, as a matter of fact, there is no such thing as a tooth to ache; and toothache is nothing but a morbid idea;" and that is the basis of her philosophy. The Emmanuel movement does not go so far as that, but so far as I have been able to investigate it, I have become pretty thoroughly satisfied that it is really nothing more than a sort of orthodox substitute for Christian Science, and I am not certain that it accomplishes any more really tangible results.

If a patient comes here with a coated tongue, and a body saturated with toxins, and the whole system polluted with poisons, how is it possible by any sort of manipulation of that man's mind to cure him of his autointoxication? When we remove the physical elements of disease there is nothing left. Such a thing as a disease standing apart by itself as an entity does not exist. There is no such thing as a mental disease independent of a physical disorder. There is always a physical basis for mental disease and nervous disease as well as for any other form of disease; so if we get this physical obstacle out of the way, remove the physical causes of irritation, the morbid element, whatever it may be, then the powers within the body will always set to work to restore normal conditions.

I Believe in Healing.

I believe in divine healing thoroughly. I believe there is no other healing but divine healing. When God made man he put his own life into him. There is life within us. If we could look into the body and see what is happening when there is some repair going on, as, for instance, when the skin is

torn away,—if we could look at it with a microscope and watch the new skin being created, actually spread out over that raw surface, it would not be difficult to believe that creation was just as real a thing to-day as it was away back in the ages. My friends, do you know that every second of our lives there are not less than eight million blood-cells created new? Eight million blood-cells are springing into life, taking the place of eight million cells that have died and out-lived their usefulness and been worked over by the liver and the spleen, or discharged from the body. This creative process is going on every moment within us; and when one is in an emergency, as, for instance, when one is infected with pneumonia germs, and the germs are multiplying and poisons pouring into the blood, and the man has a chill, a high fever, and is feeling worse every minute, with frightful pain in his lungs, and expectorating bloody matter, we examine that man's blood from hour to hour and see a marvelous change taking place in it. Perhaps the first time we examine it we find it has seven thousand white blood-cells in a minute drop of one twenty-fifth of an inch in diameter. An hour later, there would be fourteen thousand, and before the twenty-four hours is up there may be as many as one hundred thousand of those white cells in every minute drop of blood in that man's body.

What is This For?

To fight off the pneumonia germs, capture them, eat them up, and so to save the man's life. When a person has an attack of appendicitis, the very first thing we do is to examine the blood. We recently had such a case; a young lady was brought in with appendicitis, and she was very ill and in dreadful pain. She was taken about seven o'clock in the morning and was brought here in the forenoon. We examined the blood and found the white corpuscles were about 17,000 instead of 7,000; between seven o'clock and noon they had increased ten thousand in every minute drop; so that there had been created in that case not less than seventy million in five hours' time. The question was, Shall we operate? We decided to wait a little while.

The next morning the young lady was well; her temperature was normal, the pain all gone and every symptom passed away; so she escaped operation that time, and I hope she will not have appendicitis again, because it was due to a little carelessness on her part. People who take proper care of themselves do not need to have appendicitis. Appendicitis does not come like a stroke of lightning or something of that sort; it is always traceable to some indiscretion, some wrong eating, and neglect of the bowels, or turkey dinners. Thanksgiving dinners are very prolific of appendicitis.

So the process of healing is a process of creating; and when God made man, he could not leave him alone for a minute. He had to stay right by him. Man is such a wonderful machine that it took the same divine power to keep the machine in order that it did to make it in the first place. It was necessary that the same Power that made it should stay right by it and take care of it.

Professor Liebig was once asked by one of his students, as they were going across a meadow, "Can you account, Professor, for that flower by chemical and physical laws?" He looked at him, and said, "Young man, if I did not believe that there is some Power greater than physical or chemical laws looking after this planet, I should think it was a very unsafe place to be."

We are continually in the presence of the Power that made us, and that Power is within us, and that is the healing power; and there isn't any such thing as healing independent of this healing Power. But I want to assure you that divine healing has not been cornered.

Nobody Has a Monopoly of It;

nobody has a corner on it and can dole it out at so much apiece. I knew of a man who claimed to be a divine healer, and used to go about praying for people at five dollars a prayer. Just think of it! as though the Almighty was standing and waiting for

that is coming to him. That is the good one gets from praying.

But I am certain of one thing—that there is no person on the face of the earth who has the control of Almighty power and can say when that shall be exercised in my behalf, or when it shall not be exercised in my behalf. The mistake Mrs. Eddy makes is in supposing she can control God, or that she has the power to manipulate the Almighty healing power. That is where Christian Scientists are in error. They teach a great many things that are true, but their fundamental error is in supposing that they have the power to manipulate Omnipotence.

God is always doing for every man who is sick, and for every man who is in trouble, everything he possibly can to help him out of trouble and to cure him; and the only reason why he does not cure all people who are sick is because they are in the way of their own recovery; they have interposed insurmountable obstacles in the way. God must be reasonable; he must be consistent



BEGINNING OF SANITARIUM IN 1866

this man to come along. Here is a poor man suffering, and crying out in his pain to his Maker for help, but he can not be helped until somebody comes along with his five-dollar prayer! I take no stock in that sort of divine healing at all. But this thing I know, that when one is in trouble and turns his face toward the Source of all help, no matter what his creed is, no matter what his circumstances are, if that man turns honestly toward his Maker, he gets all the help it is possible for him to have under those circumstances.

God is close by; he is not far off. When a man is sick, he helps that man to pray to him, and of course the praying helps the man. It helps him to pray, because when he prays he gets his mind in line; it helps him to get in tune, to find out what he ought to do. He gets himself in touch with the great source of knowledge and of power, and of life. It is the tuning of his wireless instrument, so to speak, so that he gets the message

with himself; his great law of consistency he can not ignore; he must stand by it. He does not ignore his own laws. So when a man is sick, the thing for that man to do is to get into line. One of the old prophets said, "Obedience is better than sacrifice." There was another who said, "Cease to do evil, learn to do well." And that is the real secret of the whole thing.

THE SANITARIUM SYSTEM

(Continued from page one)

low closely in the advancing light of scientific knowledge and investigation, to accept every really valuable discovery, and to allow time to settle all the questions as to the real standing of the Sanitarium, and as to the real merits of its principles and practices. And the promoters have every reason for gratitude at the results; for the work has

(Continued on page four)

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CONSIDER THE POOR

"BLESSED is he that considereth the poor," says the Bible, and there follow a most beautiful and touching lot of promises that are made to the one who comforts and helps the poor and the sick. We have now come to the time of year when the poor especially need attention. We are blest in having our lives given to us in a country where comparative plenty abounds, where work is plenty at good wages, and where the necessities of life are within the reach of most people who have the health and gumption to hustle around and get the work.

But in nearly or quite every community there are those who are victims of misfortune in some form or other. Sickness or accidents have incapacitated them for hard labor, and they are pressed by want, and unable to see the way through the winter. There are aged people who have failed to provide for themselves sufficient to care for themselves through the years of their decline, and they feel desolate and probably are not nourished and cared for as they should be.

Perhaps we feel, as we cast a thought toward these people, that we have sufficient cares and burdens of our own, and do not need to take upon us those of other people. We are wont to say that there are those whose business it is to look after dependent people, and places where they can go for necessary care.

But to shift off the responsibilities of caring for those who have a right to look to us for support and comfort in this manner is to avoid a very plain and urgent duty, and to lose a very great privilege and blessing. The privilege of making others happy, of making life pleasant for our fellow-travelers is the greatest that comes within our reach in this world. To provide county houses for our poor neighbors, to simply pay a few cents taxes for their support is a very poor substitute for the real milk of human kindness. To go to a neighbor who needs some assistance and lift the burden that is pressing him down, and give him joy for his sorrow, beauty for his ashes, is the sweetest opportunity that ever comes to one in this world.

VISIT AND IMPRESSIONS OF DR. FRANCIS E. CLARK

BEFORE a large Sanitarium audience, Doctor Clark remarked that he had known about the Battle Creek Sanitarium for many years and had heard favorable accounts of its work, but that he had never before visited the institution. He said that for a couple of years he had been living quite closely in line with the principles of this institution, with which he had become acquainted through Mr. Fletcher. He had found very great benefit from Fletcherizing his food, and during the pleasant week which he had spent in the Sanitarium he had become thoroughly convinced of the correctness of the methods and principles here employed and should advocate them wherever he went.

Doctor Clark gave a very interesting account of visits he had made to various foreign lands in the interest of the Christian Endeavor work, of which he is the founder. He attended a great meeting in Africa of Christian Endeavorers, which was as enthusiastic as any he had ever attended in this country. In South America, and even in Turkey, he found a great interest in Christian Endeavor work. Doctor Clark's visit to the Sanitarium will be long remembered. His delightful personality, as well as the entertaining, instructive addresses which he delivered, made a great number of friends for the Christian Endeavor work. It was very pleasant to find one who has toiled so arduously and endured so many hardships, still fresh and young in appearance and vigorous in activity at the age of nearly sixty years. Doctor Clark's Sanitarium friends earnestly wish for him at least half a century more of happy activity.

THE EXPERIENCE OF A NOTED JOURNALIST

In a recent address in the Sanitarium gymnasium, Mr. S. S. McClure, the founder, editor and proprietor of *McClure's Magazine*, addressed a large audience and in a most enthusiastic manner endorsed the principles practiced at the Battle Creek Sanitarium.

Mr. McClure stated that in his first visit to the Sanitarium a year ago last June he became thoroughly converted to its principles. While in Europe last spring and early summer he backslid for a month, but when he found that it would be necessary for him to undergo a serious surgical operation he at once discarded flesh of all kinds and submitted to the operation, from which he made a surprisingly quick recovery, attributed by one of the most eminent surgeons of Paris to the fact that he was a flesh-abstainer. Since returning home, he visited the Johns Hopkins Hospital in Baltimore for the purpose of having a thorough examination, thinking it necessary to have a looking over of this sort at intervals just as a business man calls in an auditor to look over his books and give a statement of his financial affairs. Three days were occupied by the physicians there in going over his case in a most thorough manner, and at the end one of the leading physicians of this great medical institution

stated to him that he was in a state of remarkable health and physical soundness for a man of fifty years. The physician stated that he had rarely seen a man of his age whose functions were so thoroughly normal in every particular. This condition, the doctor assured him, was without doubt due to the fact that he habitually abstained from the use of flesh food.

Mr. McClure stated that since following the dietetic teachings of the Battle Creek Sanitarium he had made a remarkable improvement in health and at the present time is in sounder health than at any time during the last thirty years. To his auditors he certainly appeared to be in perfect physical condition, and he found his endurance, which two or three years ago was very small, had now become so great that he was never tired. After a long, hard day's work he was still fresh enough to continue working over hours at any time when he found it necessary to do so.

Said Mr. McClure: "I shall never eat any more meat. I would as soon think of licking up the dirt of the street as think of consuming the flesh of a dead beast." Probably no man in the United States has had a better opportunity to judge of the merits of the various systems of diet and treatment than Mr. McClure. For many years he traveled constantly over Europe, seeking relief from nervous exhaustion, which enormously incapacitated him for his work. Since adopting the Battle Creek ideas of diet and treatment, he has recovered his old-time vigor and activity, and *McClure's Magazine* under his skilled guidance is enjoying a degree of prosperity quite unexampled in its history.

THE SANITARIUM SYSTEM

(Continued from page three)

come into the recognition of the scientific world and stands to-day where the voice of cavil and contumely has but little effect, as it can only proceed from ignorance or evil-disposed persons whose malign influence is not harmful or derogatory to a work of real merit.

Many years ago the Battle Creek Sanitarium

Left the Old Beaten Paths of Medication,

and with a few well-defined and positive truths in its possession sought to find a thoroughly sane and scientific basis for medical practice in a system that should supersede the old empirical ways of past ages. It sought to take the people into its confidence, and to work with the patient in obtaining a clear and simple understanding of the nature of his trouble, of the origin and causes from which his trouble sprang, to find the very best and surest way to recovery and restoration, and to secure immunity from disease as far as possible for the future.

The old idea of pagan times that disease is a malign, invisible personality wandering about in various forms and ready to strike the dart of death into the vitals of any unsuspecting victim upon whom the fiend could pounce unawares, was forsaken entirely.

It was read in the good old Book that "the curse causeless shall not come;" and, "nei-

ther doth trouble spring out of the ground." There is a sufficient cause for every existing condition of either health or disease, and both follow as natural consequences that course which leads to them.

Disease Was Defined

as an abnormal condition, or combination of such conditions, brought about by unnatural or unhygienic causes; or, it was sometimes defined to be the remedial efforts of the system in resisting or throwing off abnormal conditions into which the system had been brought. Disease is just as logical as good health; that is, it follows causes as the effect of wrong-doing as health follows as the effect of right living. Disease must be combated not as an enemy *per se*, but must be subdued by rectifying the habits of the people. It must first be prevented by the exclusion of bad habits of living and the substitution of good habits. It is a self-evident proposition that whatever conduces to health also conduces to the exclusion of disease.

Then in combatting disease in the individual the Sanitarium does not undertake to subdue symptoms simply. Taking symptoms for guides, the path back to the origin of the disease is discovered, and the battle is waged with the causes and not with the symptoms. It was well understood that when the wrong conditions are corrected the symptoms will disappear, and that is considered soon enough for them to disappear.

Disease means that some of the vital processes of the body are interfered with or obstructed. Nature is being turned out of her course; and the work of the physician is simply to restore normal conditions, and the body will right itself. It is of no use to bombard the disease with doses of medicine, pills, purgatives, and the whole list of *materia medica*, while the poor body is left to struggle with obstacles that are thrown in its way and no effort is made to remove them.

It is on Such a Philosophy

that the Sanitarium system of medicine proceeds, and its measures are such as contribute to the strengthening of the body in its struggle for the removal of obstructions to normal action, to the nourishment of the strength of the patient, trusting wholly in the power that inheres in the system to restore and renew the wastes caused by the onslaughts against it.

The Sanitarium seeks to aid the patient in obtaining an intelligent knowledge of his case, and of the causes that have produced his illness, and counsels him in the matter of removing those causes at once and forever after. It seeks to give him such a general knowledge of the principles of right living that he will be able in the future to avoid disease. Most patients who spend a period at the Sanitarium may, if they choose, return home not only restored in health, but with minds stored with that knowledge that will be of inestimable value to them in after years, a knowledge which they may use, not only for themselves, but for all their friends. This knowledge embraces the conditions of good health, the way to live properly and happily, how to treat one's self and his friends in simple ailments.

The Battle Creek Sanitarium sees clearly that the proper way to live is with simple-

ity and under natural rather than artificial conditions. It is the advocate of no fads or fancies whatever. It has no specific cures, no wonderful discoveries, no secret remedies, no patents nor monopolies; it is very anxious to share all it has and all it knows with everybody in the world; very desirous to see people living on a higher and better plane, living more happily and satisfactorily, and it has nothing better to recommend to its patrons than the good old ways established for us by the Author of our being, and to follow in close conformity to those simple life- and health-giving ways.

THE CAUSE OF INSOMNIA

(Continued from page one)

well, as a rule. There may be some exceptions to this, but they are very few. I have seen a few cases of insomnia where I am sure it was

Caused Directly by Heredity.

Heredity is more active in causing disease than we are apt to think. We, all of us, inherit to a greater or less degree the good and the bad of our fathers and our mothers, and the physician sees its effects in a great many different ways. In diseases of the nervous system, this element of heredity is perhaps more active, certainly it is more conspicuous than in other diseases, and yet we see it also in diseases of other parts of the body.

Another Cause is Age

Youth seldom suffers from insomnia in a chronic form, but as people grow old, when the arteries in the brain begin to get hard from age, one does not sleep so well; and old people, as a rule, do not require as much sleep as those in early and middle life. But the insomnia that gives the most trouble is that which occurs in middle life. Men are, as a rule, afflicted with insomnia more than women. People who live in the temperate zones and in the cold climes sleep better, as a rule, than those who live in warmer climates; and in the winter months we sleep better than we do in the summer time. Cold air seems to be conducive to sound sleep. There are certain habits also that have much to do with causing insomnia. Sleep is a function of the body that is more easily disturbed than any other function. You can recall from your own experiences the effect when you have lost a night's sleep, or when you have gone to bed irregularly a few times, so that the habit of sleep is broken. Men who have to be on duty during the night and sleep in the day do not usually sleep well, because the habit of sleep is broken up. The function of sleep is very delicate, very easily disturbed. The habit of retiring irregularly is bad, and is conducive to insomnia; and when insomnia gets thoroughly established it is usually quite a troublesome and difficult thing to overcome.

Men Who Live an Indoor Life

do not sleep as well as those who live in the open air. Brain workers do not sleep as well as those who do physical work, because more blood is brought to the brain by mental effort, and more blood is brought to the muscles by muscular effort, so the man who works

outdoors has the blood in his muscles. The man who works by his desk has the blood more in his brain, and it tends to produce congestion of the brain, at least a hyperemia or excess of blood in the brain.

Then there are what we may call mental causes,—worry, anxiety, mental uneasiness of any kind, all tend to produce sleeplessness. The habits of eating also have much to do with our sleep. Those who eat highly seasoned foods and eat excessively do not sleep as well as those who live on a plain diet and eat moderately. So if we want to sleep well, our food should be non-stimulating. The habit that many people have of eating a large amount of pepper, peppercorn, an excessive amount of salt, in fact, any of the condiments usually put upon food, are a hindrance to sound and normal sleep. The food should be plain, easily digested, free from abnormal stimulation. The effects of tea and coffee are also bad.

Tea and Coffee.

Persons who have not been in the habit of using tea, and coffee particularly, are often kept awake by taking these stimulants, in the evening, or even in the middle of the day. Almost any one who has not taken coffee for some time, and takes a cup of coffee before retiring, probably will not sleep at all during the night. Poison possibly might be a little too strong a term to apply to tea and coffee, yet these substances are not wholesome, because they disturb the functions of the nervous system, and they also disturb the functions of other organs of the body. They are not good things for us to take. Anything that will disturb the normal function of sleep, as does a cup of coffee or of tea, certainly does harm to the body, and is not a wholesome thing to take. I have seen not a few cases of insomnia relieved by simply leaving off tea and coffee.

And There is Tobacco.

The nicotine in tobacco is one of the strongest poisons there is. There is nicotine enough in a cigar to kill a good-sized cat. You can inject a few drops of water containing a small amount of nicotine under the skin of a frog, and he dies at once. I have performed that experiment many times on the table while I have been talking to audiences, and the frog died before I could tell the fact that he was dead. Of course, the man, when he smokes his cigar, does not get all the nicotine that there is in the cigar in his blood. If he did, it would undoubtedly do serious harm; but the nicotine he gets is certainly poison, and it disturbs all the functions of the body, makes him irritable; and if the habit is excessive, it frequently produces degeneration of the optic nerve. And if it will do that to the optic nerve, it certainly has a very baneful effect upon the other nerve tissues of the body.

Alcohol is Also a Cause of Insomnia.

Sometimes physicians prescribe alcoholic liquors for a man who does not sleep. The physician sometimes tells his patient to go home and take a glass of beer at night before retiring, and the glass of beer will put him to sleep; and perhaps after a few nights he

has to take two glasses of beer, and by and by he gets to taking several glasses of beer in order to get to sleep; and then he has the alcohol habit established, and he may have to take whiskey or something of that sort in order to get to sleep. The alcohol will produce sleep, but it also causes insomnia. After the first effect has passed off, the brain is in a worse condition than at the commencement, and the individual suffers from insomnia.

Besides the poisons that I have mentioned, there are

Many Drugs that Produce Insomnia.

People get in the habit of taking drugs to produce sleep, and by and by they have a drug insomnia. They take bromids, or chloral, or trianol, or sulfanol, and they take it for a long while. Of course it puts them to sleep if they take enough of it, but they have to take a larger and larger dose, and it really leaves them in a worse condition than they were at the beginning of their trouble. It is agreed by all creditable practitioners of medicine, particularly those who have to do with diseases of the nervous system, that any drug that causes sleep, does harm in some other way to the body, and you can readily understand how that is so. The use of these drugs is often the cause of insomnia in its worst form.

Then we have

Certain Diseases Which Cause Insomnia.

As I stated at the beginning, insomnia always indicates poor health. The most common disease, I think, with which insomnia is associated is so-called nervous exhaustion or neurasthenia, or nervous prostration as we sometimes call it.

Then in the organic diseases of the nervous system, particularly in organic diseases of the brain, tumors, arteriosclerosis, where the arteries in the brain become hard, causing high blood-pressure, the brain is not properly nourished and the individual has insomnia.

In organic diseases of the heart where the circulation in the brain is disturbed, we may have disturbance of sleep. Then in disorders of digestion we find one of the great causes of insomnia. A person eats a hearty meal at night, and he goes to bed, he does not digest it, and his sleep is disturbed. That is a very common cause of insomnia. It is not a good plan to eat a hearty meal before retiring. The habit of insomnia becomes established in this way.

Different Disorders of the Bowels,

particularly constipation, are also a fruitful cause of insomnia. Any disorder of the digestive tract, the stomach or the bowels, may be a cause of insomnia. In all the acute fevers, we have insomnia, probably from two causes: the presence of poisons in the body which are produced by germs, and the excessive amount of blood that is present in the brain. Then, in conditions such as gout or chronic rheumatism, in which poisons are retained in the body—these are often a cause of insomnia. Autointoxication, or more correctly, toxemia, in which poisons are present in the blood, is a great cause of sleeplessness.

QUESTION BOX DEPARTMENT

EACH Monday evening Dr. Kellogg conducts a Question Box talk in the Sanitarium parlor, where all guests and patients are at liberty to submit questions relating to health and health topics.

Q. To what extent should one take cascara for inactivity of the bowels?

A. As little as possible. Drugs of all sorts are unwholesome. Cascara sagrada is perhaps one of the least harmful of the drugs that are used for that purpose, but when used at all, it ought to be used only as a temporary expedient; it should not be depended upon, other means should be used. When the colon is very much dilated, it sometimes needs a little assistance of some sort, or in cases of colon contraction; and it may be used in those cases without injury, perhaps, especially in connection with malt honey or honey, or sweet fruit or something of that sort which will encourage bowel action.

Q. Is Dewey right in stating that fruits are bad for food, because the potassium combines with the acid of the stomach and sets the fruit acid free, and this acid irritates the stomach?

A. No, he is not right, because fruits are a natural food for man. But when a person has a chronic gastritis, and a very sore stomach, it is sometimes necessary to avoid, for the time being, the use of acid fruits, for organic acids are often very irritating to a sore stomach. This difficulty is overcome,

however, by treatment in a comparatively short time. If the stomach is properly treated by a diet of bland, simple food, this condition passes away, and then fruit can be used.

Q. Can inherited migraine be cured?

A. Migraine is never inherited. One might inherit a debt, but one could not possibly inherit migraine, or consumption, or rheumatism, or any other disease of that sort. Migraine is caused by autointoxication. One can not inherit autointoxication any more than one can inherit satisfaction after eating a good dinner. One can inherit a predisposition to migraine, and that predisposition consists of two things—first, nerves that have an abnormal degree of sensibility; and second, weak digestive powers that have been overtaxed, so there is a predisposition to autointoxication that produces the migraine.

Q. Will it strengthen the stomach permanently to take hydrochloric acid and gastric juice, when a person is deficient in both?

A. No, it will not permanently strengthen the stomach, but it may temporarily help a little.

ARRIVALS

FOLLOWING is the list of arrivals at the Battle Creek Sanitarium for the week ending November 27: J. W. Hurson, Mich.; J. Dawson, Buffalo; Miss Kate Ritzmann, Cincinnati; C. M. Smithdeal and Miss Annie Bush, Texas; Miss Minnie Karle, Detroit; B. E. Moses, Memphis; Miss Susie Green, Ky.; Louis A. Metrick and wife, New York City; H. L. Hansen, Wash.; Fred Leathers, Pa.; Lucy F. Morehouse, Mich.;

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New York City; Mr. and Mrs. J. S. Ackers and Mrs. Wesley Taylor, Ga.; E. L. Becker, Utah.

News and Personals

The book stand is showing some new Christmas calendars that have just arrived, and a large supply of new books is daily expected.

The pharmacy booth has a nice assortment of Christmas goods, among which may be found kodaks, manicure sets, toilet articles, special Christmas cards and numerous magazines.

Miss Adelaide Case, a graduate nurse of the Sanitarium, has gone to New York City to take a six months' course in Bellevue Hos-

pital, before returning to her home in California.

Dr. Clara Radabaugh has returned from visiting her relatives and is accompanied by her sister, Mrs. Dowell, of Leipsie, Ohio, who has come to the Sanitarium for a course of treatment.

Dr. Henry Clay Morrison's farewell talk was given in the parlor of the Sanitarium on Thanksgiving day to a large audience of his admirers and friends, who listened with the keenest interest to his earnest address.

A sacred concert was given on Sunday evening in the parlors of the Sanitarium, by the Illinois Glee Club and Swiss Bell Ringers. The parlors were crowded with a very enthusiastic audience, who evidently much appreciated the high character of the entertainment.

THE BATTLE CREEK SANITARIUM AND HOSPITAL TRAINING SCHOOL FOR NURSES, BATTLE CREEK, MICHIGAN

This institution offers a three years' course of instruction for women and two years for men. In addition to the usual subjects taught in hospital training schools, special attention is given to all branches of physiologic therapeutics, including hydrotherapy, radiotherapy, phototherapy, kinesotherapy, or manual Swedish movements, and massage.

Among other special advantages offered are laboratory instruction in bacteriology and chemistry, the use of the microscope, urinary analysis, practical course in cookery and dietetics, medical gymnastics, swimming, anthropometry and open air methods.

Applicants received whenever vacancies. The next class will be organized the first of April, 1911. For full information address

Sanitarium,

Battle Creek, Mich.

SCHOOL of DOMESTIC SCIENCE



A CLASS DEMONSTRATION

The Battle Creek Sanitarium School of Health and Household Economics furnishes two courses in Domestic Science, based upon the principles of Health and Hygiene as established by the most recent findings of scientific investigation.

THE ONE-YEAR COURSE

Is especially designed for matrons and housekeepers, and those who desire education and training in Cookery, Dietetics, Chemistry, Home Nursing, Household Economics, and kindred subjects.

THE TWO-YEAR COURSE

This course gives necessary instruction and training to prepare those who take it to fill positions as dietitians, lecturers, and demonstrators.

Details of courses are given *in extenso* in the Annual Announcement, which will be sent on application.

COST {	Tuition	\$50.00 per year
	Room (with room-mate)	1.00 per week
	Table board	2.00 per week

A SPECIAL FEATURE of this School is that students are given an opportunity to meet a large part of their expenses by employment of a character that will aid them in their training.

Address all inquiries to

The Sanitarium School of Health and Household Economics,

LENNA F. COOPER, Director,
Battle Creek, Michigan.

The Rev. Dr. Hale and Dr. Gourley are taking courses of treatment in the Sanitarium. The former is professor in the Baptist Theological Seminary of Louisville, and Doctor Gourley is brother-in-law of Dr. W. J. Means, Dean of the Ohio Medical College, of Columbus, Ohio.

Mr. C. W. Johnson, one of the former head nurses of the Sanitarium, has returned from Wisconsin, bringing his wife for a course of treatment in the Sanitarium. Mr. Johnson will resume work in the nurses' department and is warmly welcomed by those who remember his faithful service.

Preparations for the third annual meeting of the Medical Missionary Conference, which is to be held at the Sanitarium January 5 to 8, are going on, and the indications are that there will be a large and representative attendance of medical and other missionaries representing almost the entire world.

Dr. Wm. W. Hastings opened his home at Ridgemoor to the students and directors of the Normal School of Physical Education on the evening of Thanksgiving day. During the evening the guests were entertained with music, which helped to make the event a most enjoyable one.

The Philathea Bible Class for the young ladies of the Sanitarium family is being re-organized and the class is enjoying the privilege of having Doctor Kellogg for teacher. All young ladies of the Sanitarium family are cordially invited to attend the class, which meets in the chapel of the Sanitarium at 9:45 on Sabbath morning.

Prof. J. N. Norris, superintendent of the Public Schools of Homestead, Pa., who is taking a course of treatment in the Sanitarium, was greatly cheered by receiving about a thousand post cards with Thanksgiving greetings from his devoted pupils. This is the first visit of Professor Norris to the Sanitarium, and his pupils have certainly made it a memorable occasion for him.

In accordance with an established annual custom, the Sanitarium managers have invited the pastors of Battle Creek and Marshall to take dinner at the Sanitarium on Monday the 5th instant. The invitation includes the wives of pastors and the missionaries resident in the Sanitarium, who number at present about twenty-five.

Among former patients the Sanitarium is glad to welcome the following: Mr. J. L. Pearson, a retired business man of New Castle, Pa.; Mr. Herman Jacobson, of Brooklyn, N. Y.; Mr. G. L. Becker, a retired merchant of Ogden, Utah; Mr. J. M. Dawson, of Buffalo; Mr. H. B. Worrall, of Philadelphia; and Mr. R. Magladerri, of Chicago.

Several of the Sanitarium force have taken advantage of the Thanksgiving season to make a trip to Chicago. Among these was Mrs. Dowkontt, who spent several days with the students under the American Medical Missionary Board who are now studying in Chicago. She reports that all are getting

along well in their work, and they are highly esteemed by their associates and instructors for sterling qualities of character.

Among the new arrivals are Mr. Chas. N. Eeklyn, a business man of Racine, Wis.; Mr. Geo. C. Schmitz, a manufacturer of Racine, Wis.; Mr. Potter Lyon, of Prescott, Ont., who is in charge of one of the departments of the Canadian Pacific Car and Transfer Company; Mr. A. W. Longley, a prominent manufacturer of Chicago, who with his wife is taking a course of treatment here; Mr. J. N. Pideock, of Moultrie, Ga., a prominent railroad man, who is also accompanied by his wife.

As usual, the Sanitarium family had turkey on Thanksgiving day. They were served in the lobby with their feet, feathers, and heads on. They were served to corn in a neat wire enclosure. They appeared very mysteriously while the guests were at dinner, and they, too, were thankful.

Carpenters are at work enclosing with windows the arches of the wide, sunny veranda south from the main entrance to the Sanitarium. This will furnish a fine promenade and wheel-chair resort in the inclement days of the winter season, and will surely be much appreciated.

A service was held in the Sanitarium parlor on the evening of Thanksgiving day, in charge of Rev. Alexander Leo. The occasion was made peculiarly interesting by reading the sentiments expressed on cards previously circulated, asking for expressions of causes for gratitude. Special music was rendered, and Miss Jeannette Martin gave a very interesting recitation with her fourteen dolls, in which she told the reason each had for gratitude. This number was very well received, and the little maid responded to an *encore*.

Taking advantage of the presence of a large number of missionaries from various parts of the world, the Sanitarium Christian Endeavor Society carried out a very unique and interesting program at their last meeting. The evening was filled with brief sketches of mission work in different fields; Mrs. Bashford spoke for China; Mrs. Pease related circumstances of the work in Singapore; Mr. Neipp gave a very interesting sketch of conditions in Central Africa, and read a letter he had just received from the boys he left in charge of his home, showing great anxiety for his return as soon as possible. Miss Silverthorne gave a very instructive sketch of the Isabel Thoburn School in Lucknow, India.

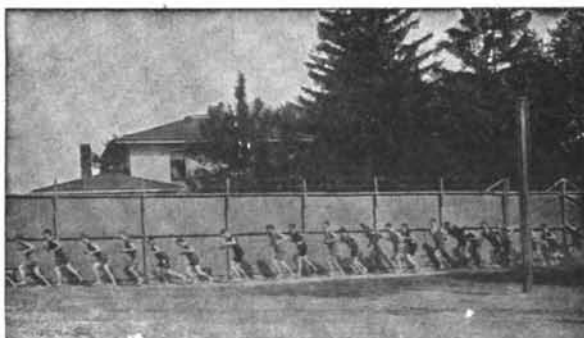
The guests of the Sanitarium will be glad to know that a valuable addition has just been made to the library in the Report of the World's Missionary Conference recently held in Edinburgh, and also eight volumes containing the reports of the eight commissions. These volumes form a very important addition to missionary literature, and are the product of well-known men, leaders of the various departments for which they were chosen by the commission, and contain the latest information from their departments. These reports are the result of two years' labor and investigation and will doubtless be perused with interest by many of the Sanitarium family. The titles of the volumes are as follows: Volume 1, "Carrying the Gospel," two books; Volume 2, "The Church in the Mission Field," two books; Volume 3, "Christian Education," two books; Volume 4, "The Missionary Message," two books; Volume 5, "Preparation of Missionaries," two books; Volume 6, "The Home Base," two books; Volume 7, "Missions and Governments," two books; Volume 8, "Co-operation and Unity," two books; Volume 9, "History Records and Addresses," two books.

Normal School of Physical Education

A Great Opportunity for Men and Women

A Two-Years Course. Each year comprises thirty-five weeks and an eight-weeks Summer Course.

By Affiliation with the American Medical Missionary College and the Battle Creek Sanitarium the students of this School enjoy extraordinary advantages in the study and practice of Physiology, Anatomy, Hygiene, Chemical Analysis, and the various methods of Treatments that have made this institution famous.



The students of this School enjoy extraordinary advantages in the study and practice of Physiology, Anatomy, Hygiene, Chemical Analysis, and the various methods of Treatments that have made this institution famous.

The Equipment is complete in gymnasium, laboratories, and swimming pools.

Tuition for the full year, \$100, including Summer School; for the rest of the year, \$75. For the Summer Term alone, \$35. Board \$3.00 to \$3.50 per week.

Unusual opportunities are given for earning money toward expenses.

For full particulars address:

WM. W. HASTINGS, DEAN,

SANITARIUM, Battle Creek, Mich.

