

THE BATTLE CREEK IDEA

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Price 2 Cents

The Functions of Sleep

LECTURE BY DR. W. H. RILEY
Treatment for Insomnia—Changes that
Take Place in the Brain During
Working and Sleeping

DURING the waking hours our brains change, as we pass along through the day, on account of the work that we do, or the rest we may take. The brain is made up of

Sundry Questions

Asked by Patients and Answered by Dr.
J. H. Kellogg in His Monday
Evening Lecture

Q. What causes low blood-pressure?

A. Low blood-pressure is always present in conditions of great weakness. A person who has typhoid fever has low blood-pressure, unless he has perforation of the bowel and peritonitis, when the blood-pressure

Physical Strength and Good Health

How to Build Well and Securely—Doctor
Kellogg Talks Familiarly and Forcibly
to His Patients on This Topic

EVERYBODY who comes to the Sanitarium ought to have his strength tested and a chart made. It is far more important to have an increase of strength than it is to have the weight increased. The weight may drop off a pound, or two pounds, or four pounds,



THE SANITARIUM GIRLS' BASKET-BALL TEAM

nerve-cells, or nerve units; the nerve-cell is to the brain what a brick is to the brick house—they are units out of which the brain is formed. These nerve-cells carry on the work of the brain, and when we have brain disease, the disease is localized in these cells;

(Continued on page three)

comes up; and that is a very important thing to know. If the doctor has an instrument for testing the blood-pressure, and is in doubt as to whether or not a patient has perforation, he can tell by taking the blood-pressure. If it be high, that is an indication

(Continued on page five)

while the strength is all the time climbing up. The important thing is to be vitally strong, and strength of muscles is to a very considerable degree strength of constitution. If one has strong, enduring muscles, he has vital strength. If your strength is improving, that means the nutrition is improving,

even though the weight might not be increasing; and so it is one of the most important criterions of your progress.

Study the Coefficients

The chart will tell you just how you stand. You find on the chart the coefficients. The weight-height coefficient tells you whether your weight is too great for your height or not, and just how much. So you know just what you need to do to bring yourself to the normal weight. There is the strength-weight coefficient which tells you whether your strength is what it ought to be in proportion to your weight. The strength-height coefficient shows whether your strength is what it ought to be for a person of your height, and there is the respiratory-weight coefficient. The purpose of respiration is to bring oxygen into the blood, to support the life of each individual tissue, and an important question is, Can you breathe as much as you ought to breathe, considering your weight? Can you take in as much oxygen as is required by each pound of tissue? The coefficient given will tell you all about that. All of these are important. After getting your chart made, you should go into the gymnasium and ask the director to tell you what to do, and he will set you at work.

Some people have the idea that they can be carried up to the Pisgah's top of health "on flowery beds of ease." That is the greatest mistake in the world. You have to work your passage, my friends; you will have to

Work Out Your Own Salvation.

I remember some time ago we had a man here who had been with us three weeks. And he said, "Doctor, I came here to rest, and you have made me do more work in three weeks than I have done before in ten years." That was just exactly what he needed. He had been shut up in a cage like a monkey, and he had been deteriorating just as a monkey does and just as a horse does that is shut up in a stable. A sedentary man is always a degenerated man; and this man had become reduced and depreciated to such a degree that he had to come up here for repairs. He expected we were going to give him something, lay something on him, or rub something into him, or in some other magic way transform him. That can not be done.

We Have to Adopt Natural Means.

If you are going to raise a crop of corn, you must do it in a natural way. It is exactly so with health. We must sow the seeds of health, and we must cultivate the crop, and the cultivation means work. Exercise is needed to break down the old tissue. You can not get the new tissue until you are rid of the old. We have to tear down the old house before we can build a new one. That is exactly what we have to do with the old diseased body,—we have to break it up, tear it down; and the hot baths, cold baths, swimming, and exercises of all sorts have the purpose to break down tissue and wear it out.

Then you go up to the dining-room after you have had some of this breaking-down process, and eat some good, healthful food; and that is building the new house out of good material. You should build in only good material, wholesome, pure, natural food. A chronic invalid can not be cured with baths alone, nor with electricity alone.

That is how a sanitarium differs from a "health resort." You go to a so-called health resort; perhaps they have a mineral spring, and they expect it is going to cure you. Or you go to some electrical institute, and they expect electricity is going to cure you. You go to a Swedish movement cure, and they give you Swedish movements.

This institution aims to provide a place where all helpful appliances can be brought together, and brought to bear upon the sick man at once. Not infrequently I say to a patient, "I think we can help you." "What are you going to do?" "Well, we are going to regulate your diet." "O, I have tried that out. My doctor had me try that last year." "What else did you do?" "I didn't do anything else." "Well, we shall also give you various baths." "But I have had baths for six months, but got no better." "What else did you do while taking the baths?" "Nothing else." "We shall also apply electrical treatment." "No use; I have had electricity." And so on to the end of the chapter.

Here is a big building that has to be lifted. It will take one hundred screws under it to lift it. One screw will not do it, but a hundred screws all together will lift it up. And we have some chronic invalids who are pretty hard cases to lift; they can not be cured simply by some little change in diet, by some baths of some kind, or some little electrical application. It is only by a system that brings all of these various helpful things to bear at one time, and in one place, each one working like a trip-hammer, striking upon the same spot, until by and by the old disease lets go.

That is the Principle

of the Sanitarium method. All of these things have to be brought to bear together. Do not waste time in half-hearted measures, but be wide awake to the situation and grapple with your troubles as though you were in earnest. A man is out on a cold winter's night. He gets cold, and colder, and after a while drowsiness comes over him, by and by he can not move. That same thing happens to people who are subject to chronic toxemia, which is the fundamental cause of chronic disease. It invades the body. The poisons gradually accumulate and begin to show their effect. First it is irritability, or inability to concentrate the mind, inability to make a decision, to focus the attention. The person reads an article, and does not know what he has read, and has to go back and read it over again. That is the effect of poison.

Perhaps the patient feels numbness, or a paralysis, or weakness somewhere, and takes an electrical application that stimulates for the time being, and he feels better, thinks he is, but he is not cured at all. The cure, if it is to be permanent, must consist in reconstruction; and that, as I have told you, can be accomplished only by work, because by exercise the old body is removed and reconstructed.

Perhaps Exercise Makes You Lame.

You ought to be thankful you can get sore and lame with exercise. That is the symptom of recovery; that is the proof that you are being made better. If you find yourself

sore and lame from exercise, that is because nature is making an effort to make stronger muscles for you; because new blood has been poured into the muscle, and the blood-vessels have been filled up so full of blood that there is pressure on the nerves. Wait a day or two and the process will have begun, and soon you can take the same exercise and much more without feeling any unpleasant symptoms at all; the muscles will have been rebuilt. At the end of two weeks of vigorous work, have your strength taken again and a new chart made. These charts will show the steps you have taken in climbing up from invalidism to health and vigor.

It is a splendid thing to be able to do things. Just see the difference between the lady who has to take a carriage to go a couple of blocks, and one who can walk ten miles and not feel any inconvenience.

The Average American Woman

is a semi-invalid, because she does not walk; she does not have exercise enough to make her vigorous. A lady said to me the other day, "Doctor, you told me to walk, and I have been down town, and it nearly killed me. I have such a backache. What shall I do?" "Take another walk," I said. That is exactly the thing she had to do. She could not be cured in any other way. Of course, she had a fomentation to relieve the pain temporarily; and she was good enough to take another walk, and within a few weeks she was walking four miles a day and feeling better.

When I took charge of this institution thirty-five years ago, everybody worked. We had a woodpile out behind the house and used to get our patients out there chopping and sawing wood. For some time we had great enthusiasm over sawing and chopping wood. But one pusillanimous fellow came into the office one day and said, "How much are we going to get paid for this chopping wood?" "Why, you get paid in health." "We won't chop another stick." And they all went on a strike, and we have never had any great enthusiasm about wood chopping since; so we had to introduce a lot of pulley weights and paraphernalia in the gymnasium. Wood chopping would be a great deal better. There is nothing better than natural and useful occupations.

But we have

A Professional Trainer

in the gymnasium every day; he is there to give you his personal attention, and there is nothing extra coming in on your bills for this work. We expect to get our pay in the satisfaction of seeing you get well quicker and more permanently cured. A weak man is always sick, and he is sick because he is weak. That is evidence of sickness.

Make up your minds, my friends, to get all the help there is coming to you. I was very much impressed with that remark some years ago. A lady was here with a niece from Baltimore, and the niece had some deficiencies, had curvature of the spine, and her aunt was very solicitous about her. She said, "Now, Doctor, I want everything possible done for this girl, because I want her to have all that is coming to her in the world." She wanted her to have all that belonged to a successful and happy life. A great many

of you are being cheated out of the best things in life because of ill health, because of inability to enjoy the things the world has for you. Health is one of the things absolutely necessary, is one of the things absolutely essential, to give us the capacity, the power, of enjoyment.

THE FUNCTIONS OF SLEEP

(Continued from page one)

certain diseases at least—and what happens to the cell happens to the brain. During activity, mental or physical, these nerve-cells become smaller in size. Consequently the outline of the cell becomes changed. Instead of having a round, regular outline, the outline becomes irregular. This effect comes as the result of mental or physical work.

Then the little granules that are present in the cell, and that furnish energy to the cell, are greatly lessened in number and become

These granules at night are very much less perfect than they were in the morning, because we have used them up through the day, so the nerve-cell that is exhausted or tired out is, first of all, smaller; second, it is more irregular in outline; third, it has a fewer number of these granules in it.

The purpose of sleep is to restore our nerve-cells, to recharge them with energy, and to rebuild them with new material. That is the purpose of sleep, and a sleep that does not accomplish that really has no value whatever; it is simply time wasted. These are not imaginary fancies at all, but they are drawn right from the microscope where a section of the brain of a dog that has been out on the chase all day is put under the microscope and compared with the brain of another dog that has rested all day. There is a distinct difference, and you could see it as readily as I. The nerve-cells of a person who has nervous exhaustion are run down all

that. We can cultivate any habit so that it becomes valuable to us, if it is a good habit; or detrimental if it is not. The habit of sleep can be cultivated, and I wish to emphasize the fact that the function of sleep is very easily disturbed, and we can not afford to disturb it. So, first of all, the individual should retire regularly; his hours for sleeping should be regular. That is a fundamental proposition.

His habits of eating should be corrected. If he is eating highly seasoned food, it should be discarded. He should eat wholesome, plain, nourishing food, live on a dietary that is non-stimulating, one that will nourish the brain properly without overstimulation. Spices, and pepper, an excessive amount of salt, tea, coffee, tobacco, and alcohol should all be discarded. They all tend to produce insomnia.

I know you may think it is easy for me to stand up here and tell you the bad there is in



THE SANITARIUM WHEEL-CHAIR BRIGADE

smaller in size. That means that the energy in the nerve-cell is decreasing, is being used up. The nerve force is real force; it is a form of energy just as much as light or electricity, or anything else; and this energy travels from one part of our nervous system to another. We have to have something from which to make energy, and the thing that makes nerve energy, of course, is primarily the energy that is in the food,—but that food is digested and changed and carried to the brain in the blood-vessels, and stored up in the brain in these little granules.

We Call Them Granules

because they look like little grains, and they are stored up in the nerve-cell. As we do our duties through the day, these granules are used up to make nerve force, and we use it in walking, and in talking, and in doing our various duties.

the time, and he has lost his ability to build them up. He has gone beyond the physiologic limit. Normally the cells run down through the day and are built up through the night, and that goes on day by day, every twenty-four hours. But when the nervous system becomes exhausted and loses the ability to build its nerve-cells up again, then we have nervous exhaustion, we are tired all the time; they are irritable, they respond for a time to stimulation, but they soon become tired out. The physical basis for nervous exhaustion is this run-down condition of the nerve-cells.

As to the Treatment of Insomnia

First of all, it is a fundamental proposition to get the individual to live right, to cure his bad habits. He should retire regularly and at proper hours. He should cultivate the habit of sleep. There is a great deal in

these things; you may accept or reject it in a general way, perhaps, without any demonstration of what I am telling you. As a matter of fact, I have seen all of this I am telling you to-night demonstrated over and over again, either in the laboratory, by actual experiment, or in individuals, so that I am not simply talking here in a general way; and when I say that coffee keeps people awake, I know that it does, because I have seen it over and over again. When I say tobacco keeps a man awake, I know that; and the things I am telling you here to-night are not simply theory but demonstrated truths.

Another Fundamental Proposition

in this thing is to remove the causes of sleeplessness. Insomnia is a symptom. It may be a symptom in a great many different diseases. In all these diseases, whether it be

(Continued on page four)

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THE WINTER SEASON

We are already in the grasp of another winter, moderate and beautiful; but many shrug their shoulders as they go out into the chilly air, and feel quite inclined to cuddle down by the fire in dressing-gown and slippers, shutting themselves away from fresh air, and in doing so avoid the needed exercise to keep themselves in good health and vigor. The command to "Shut the door" greets the eye and ear continually. At this season of the year, too, it is usual to discontinue from our tables the fresh and living foods, the lettuce, salads, fresh fruits, celery, etc., to which we have been accustomed during the summer, and confine ourselves to the heavier foods, including generally a full supply of meats and fats, involving an undue amount of the protein element. The consequence of this course, a course which is indicated by a weak and unmanly fear or dread of a little cold air, is that the system becomes clogged with food, filled with poison from want of exercise, the mind is dull and stupid. Too much time is spent in bed, and the sleep is unsatisfactory and unwholesome because the fresh, free, and pure air is excluded, and the person is bathed outside and inside with a vitiated, lifeless atmosphere that is altogether unfit and unwholesome.

The person is an easy victim of colds and influenza, of pneumonia, and tuberculosis, and comes out in the spring, if he survives at all, with a body that is bilious, deteriorated, and that requires the attention of a doctor, though it is frequently further abused by nauseous doses of bitters and purgatives, by tonics and stimulants, to get rid of the evil effects of the winter experience.

All this has been the experience of ages past, and tons of sulphur and molasses, of pikery and pills, of pain-killers and catnip, of wormwood and boneset, have been consumed to counteract the evil effects of the abuses heaped upon the system by this unwise course of living. Cold weather is not an evil. Cold outside air is pure and healthful; it is full of ozone and vigor, it flushes the cheeks with the glow of health, it is tonic

and stimulant. This imbecile coddling of ourselves by the fire is not good. To be sure, no one is called upon to expose himself unreasonably to the extremes of cold. It is not expedient to go about in thin garments without underclothing, so that our skin is blue with cold. We should keep warm, but there will be no trouble about that if we are careful to maintain our vigor and keep our blood coursing healthily through our veins.

Recently, before breakfast, on the coldest morning we had yet had this winter, a lady from one of the large cities of this country came briskly into the Sanitarium parlor, pleasantly greeting those who were there, and asked, "Is this room too warm? I am not qualified to decide that, for I am so warm myself that I might wish to have it cooler than the rest of you would wish." She was asked why it seemed so warm to her. "O," she replied, "I have just come in from a three-mile walk, and I feel as warm as summer." There went a shiver through the company, most of whom had just come from their beds.

The temperature of the body does not vary with the seasons, and it should always be summer inside our jackets. Our bodies are equal to the vicissitudes and emergencies of climate, hot or cold, if we give them a fair chance to meet them. Provide plenty of fresh air at all times, plenty of fresh food, and plenty of good exercise, and we need not fear or cringe in the presence of rigorous old Boreas.

THE FUNCTIONS OF SLEEP

(Continued from page three)

the kidneys, the blood-vessels, the heart, or the brain, always seek for the cause and remove it if possible.

The amount of sleep required by different individuals varies. In early life, the child sleeps twelve to sixteen hours, and the child grows while he sleeps; and the reason the child grows so fast is because he sleeps so much. We all grow while we are sleeping; we can gain in weight only while we are sleeping, and we lose weight when we are active and moving about. Exercise reduces the weight, and sleep always increases the body weight. The amount of sleep required by a healthy, normal individual is about eight hours. Women are said to require a little more than men. In old age, one does not need so much sleep. As a matter of fact, sleep in the later years of life is more shallow, more easily broken, and there are probably several reasons for this; not so much sleep is required. During the first two hours of sleep it takes very much more noise to awaken a sleeper than it does after that time.

Coming more directly to

The Conditions of Sleep,

we note, first of all, it is important for the sleeping-room to be a favorable place to sleep. We ought to be away from noise and away from light. Why we sleep better at

night than in daytime is because the stimulation of light passing into the eye and impinging on the optic nerve, keeps one awake, and it is the same with sound.

Rest in the middle of the day is important, because it gives the vital forces a chance to recuperate. I would like to emphasize the importance to invalids, especially, of the rest hour in the middle of the day; and all should go to bed regularly.

We will accomplish much more in life if we go to bed and sleep eight hours good and sound. Some of us are ambitious, and want to get through a course in college, or want to make some money, or want to do some great thing, and try to cheat nature out of her sleep, but it is a hard thing to do. She demands it back again sooner or later. And we really accomplish more in life, we do a larger amount of work of every kind if we have the normal amount of sleep.

There are a great many different things that we can do to produce sleep. One of these is the warm bath at from 98° to 100° F. Please remember that it is not a hot bath. We do not advise a hot bath to produce sleep. The bath should be taken best just before retiring; keep the head cold while you are in the bath, remain in the bath fifteen or twenty minutes, or even half an hour; then get immediately into bed, and very often this will produce sleep.

The neutral bath is a few degrees lower temperature, from 92° to 96°, and in some cases a few degrees lower seems to work better than the warm bath. The neutral bath is one where the temperature of the water is the same as that of your skin. A hot bath, or even a warm bath, stimulates the body by heat. A cold bath stimulates it with cold. A neutral bath does not stimulate it at all; and really the purpose of this neutral bath is to isolate one, cut off all external stimulation. This neutral bath is used very effectively in some of our insane asylums. The patient is put into the neutral bath and is kept there all day, and it does wonders. In many of our best organized insane asylums of the present day, they are discarding drugs and using baths.

Then the hot blanket pack around the hips and legs will very often produce sleep. A very important thing in all this treatment is to have the patient where he is ready to get right into bed.

Do Not Go to Bed with Cold Feet,

if you are troubled with insomnia. The baths I have mentioned act by drawing the blood away from the brain.

Of course, the stomach and bowels should always be looked after in cases of insomnia. Constipation is often a cause of sleeplessness. When the bowels are relieved, the patient often goes to sleep.

But another very important consideration is to look after the patient's general health. The patient should have a course of tonic treatment, tonic baths in the fore part of the day. And he should live an outdoor life. The poisons are burned up by getting outdoors and breathing the air; and one of the very important treatments in relieving auto-intoxication—poisons that may be absorbed and get into the blood—is to get out and get fresh air, and so burn them up.

If one who is troubled with insomnia has any considerable amount of work to do, he should do it in the early part of the day. The afternoon and evening should be spent in an easy way, free from intellectual effort, free from study, free from mental disturbance of any kind, and in a quiet, agreeable way. Sometimes playing light games, or going to some amusement or something that entertains without taxing, without taking the attention too much, is beneficial.

I have already stated that of course there are many drugs that produce sleep, but any drug that produces sleep does harm. It may be all right in some cases to use drugs for a night or two to get over a bad place or to get the patient started, or something of that sort, but their habitual use is a bad practice; and many people have come to this institution who have been taking drugs for months and years, and are still troubled with insomnia, and the only way we can cure their insomnia is to get rid of the drugs first.

SUNDRY QUESTIONS

(Continued from page one)

that peritonitis exists. The person who has chronic tuberculosis has low blood-pressure. Infectious diseases generally are accompanied by low blood-pressure. Whenever there is fever, there is usually low blood-pressure. The heart is weak, and that makes the pressure low. Chronic dyspeptics generally have low blood-pressure, and when they get to be old, the blood-pressure comes up, because the arteries are hardened, through chronic toxemia, which results in raising the blood-pressure.

Q. If proteins are kept low, will excessive fats and carbohydrates cause autointoxication?

A. An excessive amount of fats will sometimes give rise to a condition of acidosis and autointoxication. It is not a good plan to take an excess of fats. Carbohydrates do not produce poisoning. If one takes the proper amount of protein, there is no danger from carbohydrates. They do not produce the poisons which are formed from protein.

Q. Is it not injurious to use hot water bottles after using fomentations?

A. The principal harm from hot applications is in applying them over the whole body. If there is local pain, or a congested state, these hot applications are useful, and there is no harm in using them many times if the body is not overheated so as to produce perspiration and depression.

Q. In making yogurt buttermilk, should the yogurt tablets be used each time?

A. The proper way is to put the tablets into milk that has been properly sterilized by boiling it for about five or ten minutes. After cooling it down to 110° put in the tablets, and let it stand overnight until it is coagulated; but then it will have a bitter flavor. Then take some of this and put it into more milk prepared in the same way, and put another tablet in with it, and this is repeated, the third or fourth time, when you will get a very good quality of buttermilk. The bitter flavor is produced by the *Bacillus Bulgaricus*; but after making three or four

preparations in this way you will get a very fine quality of yogurt buttermilk, and after that you can go right on making it, using one lot as a starter for the next, but always putting in one or two tablets of the yogurt dissolved in a little water and mixed in well, so as to keep up the culture of the bacillus; otherwise it is likely to run out.

Q. Can locomotor ataxia be arrested in its early stages?

A. Yes, and sometimes in its later stages, though not in its latest stages, of course; but this disease is now regarded as a curable disease. I have seen a good many people get so well they suffered no inconvenience.

Q. What is your idea of the two-meal plan?

A. I think it is by all means the better plan. It really is the only proper plan for sedentary and literary people. People who work very hard outdoors in the field—I am not sure that three meals may not answer just as well. Everything depends really upon the kind of food and the quantity. A person can eat four meals a day without doing any harm to himself, without violating any law of physiology, if he carefully adjusts his food to the length of time that elapses between his meals; but if one is going to eat four meals a day, he must take a small quantity of food that is easily di-

gestible. Rice, for example, will leave the stomach in an hour, whereas roast pork requires five hours and a half. A fried egg will require three hours and a half in the stomach, whereas a ripe apple will require only an hour or an hour and a half. There is a vast difference in the length of time required for the digestion of foodstuffs, and the number of meals must be regulated according to the quantity and the kind of food we eat.

Q. Are wheat foods more wholesome for persons suffering from inactive bowels than rice foods?

A. Yes, if it is whole wheat, in some respects it is more wholesome, principally because of the greater bulk. But people who use rice foods may use colax, bran biscuit, fruit, and other things which give bulk.

Q. What is autointoxication?

A. Autointoxication is self-poisoning; that is, it is poisoning with poisons created in the body. Drinking alcohol produces intoxication, but that is not autointoxication, because you did not make the poison yourself; but autointoxication is a poisoning with intestinal poisons, poisons that are generated within the body itself, and it is the most universal kind of intoxication.

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News and Personals

Miss Lenna F. Cooper is away for a Christmas vacation, during which she is to attend the convention of the Association of Household Economics in St. Louis, which is held during the last week in the year. During her absence the work of the dietitian's department is in charge of Miss Ruth Tenney, who will be assisted by Miss Hubbard.

Bishop Samuel Fallows, of Chicago, who is much interested in psychotherapeutics, somewhat after the manner of the Emman-

uel Movement, lectured under the auspices of the Women's League in the Presbyterian church on Wednesday evening last. Bishop Fallows was the guest of the Sanitarium while in the city.

Mr. A. C. Mitchell, of Lawrence, Kans., a newly arrived guest at the Sanitarium, is an insurgent member of the House of Representatives, whose seat was won after a sharply contested election. Mr. Mitchell is a personal friend and neighbor of Governor W. R. Stubbs, who was here with his daughter last autumn.

Dr. and Mrs. H. T. Whitney, of Foo Chow, China, have returned from the centennial gathering in Boston, to take up a course of treatment in the Sanitarium. Miss Alice Peters, of Pekin, China, a former patient, has also returned. Dr. and Mrs. Neville have returned from Eagle River, Wis., for a short period of rest and recuperation.

Miss Alice White, for several years a faithful member of the Sanitarium family of workers, left us on the 11th inst. for her home in Fairmont, W. Va., where she will visit relatives for a short time, before going to St. Petersburg, Fla., to spend the remainder of the winter. Miss White will be greatly missed by her many friends in the Sanitarium.

We had the privilege of entertaining for a few days Rev. J. A. Canby, of Traverse City, the popular pastor of the Christian Church of that city. Mr. Canby came on invitation, and while here gave a series of interesting and instructive addresses on the Epistle to the Galatians. Mr. Canby is an earnest and independent student and a pleasing and forceful speaker.

New carpets have been provided for medical gymnastic exercises in the gymnasium, and also large curtains which make it possible to divide the gymnasium so that both men and women can take their exercises at the same hour. These exercises are given each day from 3:00 to 4:00 P. M. The entire work of the Physical Training Department is now under the charge of Prof. Anton Schatzel.

The Mission Study Class is held in the Sanitarium chapel on Wednesday evening at 7 o'clock. The subject of study is, "Korea in Transition," and the leader is Mr. F. E. Barr. A very pleasant and profitable hour is spent each week in getting familiar with the interesting people and their country. Recent events in Japan connected with the annexation of Korea, make the subject very timely and instructive. A cordial invitation is extended to any desirous of joining the class.

Among the newcomers we notice Mr. G. S. Loomis, of Detroit, executive secretary of the Packard Motor Car Company, who is spending a little time at the Sanitarium in rest and recuperation; Mr. A. Holgate, a manufacturer of decorative work, from Lansing, Mich.; and Mr. H. E. Hompe, a prominent merchant of Deer Creek, Minn.; Mr.

FIT FOR WORK

There are some men in this country who work 18 hours a day; who are always fit for work; always work at full steam; filling half a dozen jobs each big enough for a big man; rarely if ever take a vacation; are never drowsy after meals, never constipated, never troubled by headaches.

Are you in the same class?
If not, would you like to be?
Would you like to know their secret?

It is nothing very wonderful, nothing extraordinary—just this: their brain power is always top-notch because they keep the mechanism of their bodies entirely free from clinkers, free from accumulating rubbish which damages the blood-supply. And how do they do it?—By a very simple expedient—by the daily use of a special kind of *sea-weed*.

This sea-weed is put up under the trade name of *Colax*, and as a remedy for chronic constipation it simply has no equal. It is in the form of a biscuit or cracker and can be eaten like bread. It is not a food, and in no sense a drug.

Write at once for full information, or better still, send us one dollar and we will mail you a large package containing twenty-one *Colax* biscuits.

THE KELLOGG FOOD COMPANY

Dept. A-7

Battle Creek, Mich.

Hands Up! How Many Think that ALL Germs Are Our Enemies?

Do you think so? You have heard so much about germs in this and germs in that, germs in everything, germs that cause constipation, diphtheria, typhoid fever, a hundred horrible diseases;—didn't you know that there are some germs that are actually our friends? that will not only not harm us but actually fight the disease germs and even overpower them?

The scientists knew—yes, they have known it for years. What they didn't know—until very, very recently—was this, how to get these friendly germs to help us, how to get them inside the body so that they could fight the armies of disease germs that always swarm there, and get the better of them. At last they found out—in Geneva, Switzerland, one day—when a student of the Swiss scientist Massol, working in his laboratory, discovered a lactic-acid germ in some Bulgarian buttermilk which proved to be the long-sought Eureka. We promptly imported cultures of these germs direct from Bulgaria, studied how to prepare them in a convenient, pleasant form, and after months and months of experimentation, *we had it!* The result was *YOGURT*—little buttermilk tablets, sweet, cleanly and toothsome—each tablet containing about ten million of these friendly germs.

Everybody has disease germs swarming in his body—and sooner or later they work mischief—colds, headaches, indigestion, diseases big and little. To defend against these you should use *YOGURT*.

For one dollar we will send you, postage paid, a large package containing one hundred *YOGURT TABLETS*.

If you wish further information, write us for a copy of the Yogurt Book.

THE KELLOGG FOOD COMPANY

Dept. B-11

Battle Creek, Mich.

It's a Sign of Intelligence---

Yes, intelligence above the average—to be reading the Battle Creek health journals—the *Battle Creek Idea* and *Good Health Magazine*—because the average man is not yet alive to the importance of health principles—at least, not until he is down and out, and has learned by sad experience.

Over 100,000 sick people—more or less sick—have been restored to health by the Battle Creek way of living. And now, at last—gradually—*intelligent* people are coming to realize that they might as well learn and live the Battle Creek way *before* instead of *after* they are *sick*—and never be sick.

You — wherever you are — can learn and live the Battle Creek way by taking *Good Health Magazine* and the *Battle Creek Idea*, and absorbing the good things they bring you—the *Idea* every week in the year, the *Good Health* every month in the twelve. Why so often?—easily answered: health, you know, is a matter of sticking to it; you can't be reminded too often—a stimulant once a week and a re-inforcement once a month—is just about what you need to keep you nicely on the high-road to Health A-plenty.

How Much Does It Cost?---

\$2.50 for the year if you buy them singly—cheap enough; yet cheaper still, if you buy them in company—\$1.75 is the price we have set for the two together, if you subscribe before the year is out. A big saving certainly—but we gladly present it to the readers of the *Battle Creek Idea* as our Christmas gift.

¶ By remitting promptly, you will enable us to get the first issues to you in time for Christmas.

P. S. To still further reward prompt action, we will add a year of *McCLURE'S*, *AMERICAN*, *HAMPTON'S*, *GOOD HOUSEKEEPING* or *WOMAN'S HOME COMPANION*, if you send us \$2.85. Magazines sent to different addresses, if desired. **Remit to GOOD HEALTH, Battle Creek, Mich.** Personal Checks quite acceptable.

Mr. W. S. Yeager, physical director of Mt. Herman School, Northfield, Mass., a branch of the Moody School, spent several days at the Sanitarium, studying the diet system of the institution with a view to introducing some of its features into the school he represents. Mr. Yeager has a fine, genial nature, and during his stay made many friends who will welcome him back at any time.

Prof. W. A. Mansell, of Bareilly, India, is among the guests who are spending Christmas at the Sanitarium. Professor Mansell is in charge of the educational work of the Methodist Mission with headquarters at Bareilly. The editor of the *BATTLE CREEK IDEA* formed a very pleasant acquaintance with Professor Mansell some years ago when he was president of the Boys' College at Lucknow, India. It is a pleasure to meet this gentleman again.

Wild rice, a new cereal, is being served in the dining-room and seems to be much liked by the guests. This wild rice is harvested by the Indians in the marsh lands of

pillars were especially attractive, draped with smilax, and the large center piece was resplendent with poinsettias and other foliage plants. The dining-room was well decorated with holly and evergreens and beautiful flowers and plants on every table, the whole dining-room giving a very pleasing and attractive appearance.

Several of the medical students have arrived at the Sanitarium for Christmas vacation, among whom are: Messrs. Wolley, Williamson, Ramos, Roy, Kolvoord, Mathewson, Lewis, Adrounie, and Miss Fredricson, and others are coming within the next few days. It is expected by the end of the week that the whole body of students will be here and will remain through the Medical Missionary Conference, for which Dean Quine of the College of Physicians and Surgeons has granted the A. M. M. C. students a special extension of vacation.

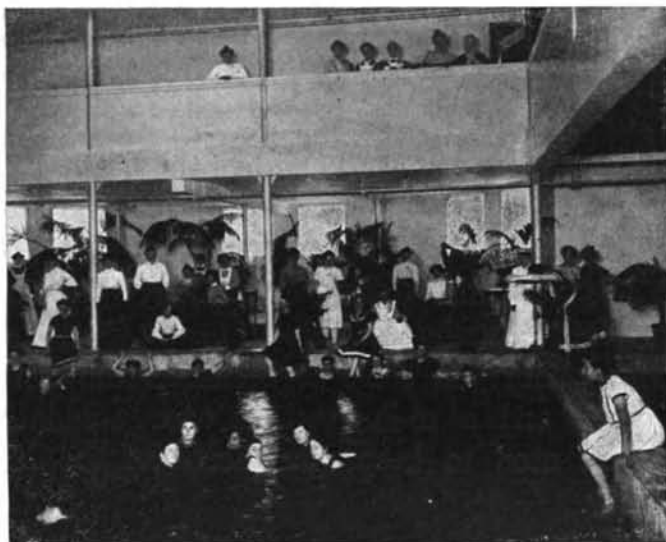
The Medical Missionary Conference convenes next week on Thursday afternoon. The meeting will open with a dinner given by the Sanitarium medical staff to the members of

The Christian Endeavor Society met in the Sanitarium chapel on Friday evening, the subject of the evening being, "Christ Born in Us." Doctor Phelps gave a Christmas message in a very bright, helpful address. The quartet rendered special Christmas music, and a unique feature of the meeting was the telling by missionaries from half a dozen different countries of how Christmas was spent in the lands where they had labored. The countries heard from were the Congo, Mr. Joseph Clark; India, Dr. W. A. Mansell; Korea, Miss Marker; China, Miss Patterson; Africa, Mr. Niepp; and Japan, Miss Rolman.

Several of the Sanitarium guests have been visited by members of their families who have come to spend the festive season with them, among whom we note Mr. A. L. Doremus, a former patient of the Sanitarium, who is visiting his sister, Miss Doremus; Mr. Walker and little Dorothy are spending Christmas with his wife and daughter; Mr. and Mrs. Baker and daughter, of Troy, N. Y., have been spending Christmas with Miss Lambert of the Domestic Science Department, and have now left for Los Angeles, where they are to spend the winter; Mrs. Farquharson has also arrived from Jamaica, W. I., to spend Christmas with her husband and daughter, who have been for some time guests of the Sanitarium.

Miss Ella Thompson, a Sanitarium nurse and domestic science expert, who has spent several months demonstrating health foods in the cities of Chicago and Milwaukee and is still engaged in the latter city, is spending Christmas with her friends at the Sanitarium, who are delighted to see her after a protracted absence. Miss Thompson's work is confined to the very large stores, and she reports a most interesting time, the public seeming to be very eager for the information that she has to give. Miss Thompson employs a number of assistants in the work of demonstrating, while her time is given to health talks and verbal instruction, answering questions, etc. She visits women's clubs and various organizations, and everywhere finds people interested in the vital question of proper foods.

The Social Hour on Wednesday was a very pleasant occasion. The parlor was decorated with palms, and the bright, blazing fire created a cheerful atmosphere and lent just that touch of home which was peculiarly grateful to the large number of people who gathered there for a little relaxation and social intercourse. Miss Doremus gave some very beautiful selections upon the guitar, Miss Farquharson played some fine selections on the violin, and Mr. Harvey Clark gave two mandolin solos which were accompanied on the piano by his sister. Mrs. Anton Schatzel gave a very pleasing romance which was illustrated with music at the piano by Mr. Drever. Dr. W. A. Mansell, of India, Dr. Jos. Clark, of the Congo, and H. S. Simmond all gave some excellent stories which cheered and delighted the audience and served to dissipate any feelings of homesickness and loneliness from which guests might have suffered.



CHRISTMAS IN THE SWIMMING-POOL

Louisiana, Arkansas, and other Southern States. The grain is very different in appearance from ordinary rice, being very irregular in size, and, being only partially husked, is quite dark in color. This grain has a delightful flavor, and is nutritious.

Prof. and Mrs. Irving Fisher and family are spending Christmas at the Sanitarium. Professor Fisher, from Yale University, is well known by the Sanitarium family and always warmly welcomed. Professor Fisher is to deliver some lectures in Chicago, and will probably remain with his family at the Sanitarium during the Christmas vacation. He has the chair of political economy at Yale and is president of the National Committee of One Hundred on Public Health.

The Song Service was held as usual on Friday evening in the lobby. The lobby was decorated and special Christmas songs and music were rendered. Decorations in the lobby were extremely beautiful. The white

the Conference and the city pastors. The public meetings will be held each day at 2:30 and 7:30 P. M., and the public generally is invited to attend them. All meetings will be held in the chapel. Every indication points to a most successful time. The program includes a very large number of celebrated men and women from the mission field. Most of the speakers will be medical missionaries.

Miss Anna Wood, from the Chicago Dispensary, one of the graduates of the Sanitarium Training School for Nurses, is spending her Christmas vacation here. Also Miss Dora Nelson, a well-known graduate of the nurses' school, has been visiting here for Christmas. Miss Nelson is giving massage in Chicago, where her services are much in demand. These visits from former graduates are always welcome and much appreciated by the Sanitarium family, who in every way seek to cultivate a home atmosphere.

THE BATTLE CREEK IDEA

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BATTLE CREEK, MICH., JANUARY 6, 1911

Price 2 Cents

National Vitality

Abstract of Lecture in Sanitarium Parlor
by Irving Fisher, Professor of Political Economy in Yale, and President of Committee of One Hundred on National Health

LADIES AND GENTLEMEN: This is a time of very rapid progress all through the world, a time of great public questions, a time when people are beginning to see the possibilities of improvement in various lines. There seem

Physiologic Medicine

How from Small Beginnings the System
Has Grown into Recognition
and Acceptance

GLIMPSES of the true principles of therapeutics have been obtained from time to time all during the ages. Nothing can be declared to be new. The principles of truth are not of modern origin, though many of them

Living Depends Upon the Liver

Doctor Kellogg Speaks on the Subject of
the Liver and Its Structure and
Many Functions

My subject lies very near everybody's heart, for it is the liver. I think more people complain about their livers than about any other organ of the body. As a matter of fact, the liver is almost the least worthy of



to me to be three chief lines of improvement,—the conservation of our national natural resources; the conservation of national vitality, and the improvement of our institutions, political, social, religious, and other. We have here in the Sanitarium to-day three distinguished gentlemen who are particularly interested in one or more of these three fields, and I hope you will hear
(Continued on page four)

have been long buried in the rubbish of the past. Superstition and tradition have often found more congenial soil than truth, and have been able to make prodigious growth while the divine plant of truth has been permitted to wither and die. There was a long period, now known as the Dark Ages, when the light of truth was almost extinguished. But in the renaissance that followed, the
(Continued on page three)

blame of all the organs; it is the most untiring in its efforts to preserve our lives; it is the most industrious, it is the most efficient, the most long suffering—it is really the most wonderful organ. There is no other organ in the body so wonderfully made as the liver, except the brain. There is no other organ in the body which does so many kinds of work.
The liver is the largest gland in the body,

weighing normally three pounds and a half, and is located on the right side. It lies, or should lie, entirely above the lower border of the ribs. When the liver comes down from under the ribs, we may know there is something the matter. Either the clothing has been too tight, or the liver has been so badly abused that it is swollen and enlarged.

The Illustrations Show

the several lobes of the liver and the gall-bladder, and the large vein that carries the blood back to the heart from the lower extremities. The portal vein conveys the blood to the liver from the stomach, the pancreas, the spleen, intestines, and other abdominal viscera. All the blood that passes through these organs goes through the liver before it returns to the general circulation—a fact of very great importance, because it secures the filtration of the blood which absorbs the food-stuffs. Everything that goes into the stomach—the mustard, pepper, ginger, tea, coffee, and the alcohol in every form, and all the unwholesome things we eat—the rich gravies and pastries, must all be filtered through the liver. If they went directly into the blood they would cause death at once. The liver stands between us and death every moment of our lives. A person having typhoid fever would surely die if it were not for his liver. And his first big Christmas dinner would be pretty likely to kill him, too, if it were not for the extra work the liver does in filtering the blood which passes through the portal vein. After the blood has been purified, it goes back to the heart through the hepatic vein.

The Liver is a Mass of Living Cells

each one of which has its particular function to perform; but if we examine the liver under the microscope, there seems to be just one kind of cells, just one kind of workman, though half a dozen different kinds of work are done by the liver. The blood is carefully filtered while passing through minute vessels. That is why the liver suffers so much when one takes poisons into his body. The drunkard gets gin-liver by saturating it with gin containing alcohol. In the first place, as I said, the liver is a filter; it removes poisons from the blood.

Another thing it does is to detain poisons. It destroys poisons, it removes poisons, it also captures poisons and stores them up, and passes them on slowly into the body. When a person is bitten by a rattlesnake, or some other venomous serpent, it is recommended that the limb be ligated so the blood containing the poison will pass slowly into the circulation, and so the life will be saved. That is what the liver is doing for us all the time. The poisons formed in the body are detained in the liver so the body will be able to deal with them as they pass slowly into the circulation.

Another thing the liver does is to aid in digestion. All the starch we eat is worked over by the liver. At each ordinary meal, we take perhaps a quarter-pound of starch, and this is all to be converted into sugar. It would not do to put that sugar directly into the blood, for the blood-cells would be damaged and the blood thickened; it is reconverted into a peculiar kind of starch called animal starch or glycogen, having essentially

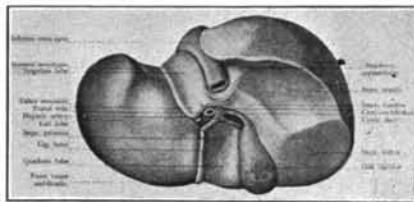
the same composition as ordinary starch, that is stored up in the liver.

The liver also acts as

A Rendering Establishment,

and a rendering establishment in the body is a necessary accessory, because the body is full of dying particles. Eight million blood-cells are dying every second. The most marvelous thing about it is that eight million new ones are created to take the places of the dead ones. That brings us face to face with the great fact that the Power that made us is still with us and is working for us. The process of creating must go on so long as we live; and that creating power at work within us is the power which heals us also; so the great Healer is working for us, and that is the great ground of hope for the sick man, because the Power that created him is just as able to heal him as to make him, and is just as willing to do it. But something must be done with the dead particles.

The liver takes all the refuse particles of the body and makes them into useful things as by-products. These dead cells are brought to the liver, which works them over and utilizes every particle of them. The potash contained in these cells, which is a peculiar



THE LIVER

sort of lye, is used to make bile. It helps to convert the fat which we eat into soap, and thus becoming soluble it can be absorbed. It was a great mystery to physiologists for many years how fat was absorbed. It was known that it was emulsified, but how did the particles ever get through the walls of the blood-vessels? Now we understand it. The bile and the pancreatic juice make soap out of the fat, and the soap is soluble; it can pass through membranes, so that mystery disappeared.

Then the Coloring Matter of the Red Cells

is used to tint the hair and to tint the dark chamber of the eyes where the marvelous photographs are made of everything we see, and to tint the skin, and other organs like the spleen. The coloring matter used in various parts of the body is obtained in this way from these red cells.

The liver does some other things. But perhaps the thing that is most important and useful to us is the work I mentioned a little while ago—the poison-destroying property of the liver; and that is one thing I purposed to dwell upon particularly this evening. Here is a picture of a drunkard's liver, and you will see what has happened to that liver because of the alcohol that has been soaked into it. The same thing happens with any other poison. The rough masses over this liver are caused by the con-

tractions produced by the alcohol which it has absorbed. Put a piece of meat in alcohol, and it shrivels up and becomes like a piece of leather. The liver of a drunkard is almost like a piece of leather; it is so tough and so fibrous, as the result of the influence of alcohol. But there are other poisons.

Just as Bad and Worse than Alcohol.

Some of the poisons which we habitually use upon the dinner table are as bad as alcohol, or even worse. Professor Voix, of Paris, an eminent physiologist, has made a very extensive research upon this subject, and he found that the acetic acid of vinegar has twice the power of alcohol to produce gin-liver. He found that pepper has six times the power of alcohol to produce gin-liver. Mustard, pepper, hot sauces, and all these hot, irritating substances that smart and burn as they go down into our stomach—they have the same effect upon the liver that they have upon the skin. Mustard will raise a blister upon the skin, and when it gets into the liver it is just as irritating. Professor Voix found that the poisons absorbed from the intestine when putrefaction is going on there, have the very same effect upon the liver, even in very small quantity. So people who are careless about their habits, careless in maintaining regularity of the intestine, and thoughtless in relation to themselves, find their skins tinted, black circles form around their eyes, they have bad breath, coated tongue, spots upon their hands and faces—properly called liver spots—because they mean an impaired liver. So long as the liver is able to capture the poisons and hold them back, there are no bad symptoms; so one may sometimes go on for years without suffering any ill effects; but by and by the liver gets full, unable to hold the poisons back any longer, when they go into the blood, and then trouble comes.

It is this poison-destroying power of the liver that protects the body; but the liver is

Not the Only Means of Protection.

It is the largest poison-destroying gland, but there are others. There is a little gland at the base of the brain called the pituitary body. It is only about as large as a pea, and it has only been within very recent times that any one knew what this was for. It has been known that when this gland degenerated, changes took place in the shape of the body.

This gland is divided into two parts, one of which is made up of tasting or smelling nerve cells, and as the blood passes through, these little cells taste of the blood; and when there is a considerable amount of poison in the blood, they stimulate the other part of the gland, which is a true gland, and cause it to secrete a peculiar substance, which is poured into the blood, and circulating through the blood, by and by reaches the thyroid gland, which is located just below the larynx.

The thyroid gland is thus notified that a large amount of its product is needed to fight poisons, and this product is

Thyroidin,

a peculiar substance which contains a small amount of iodine, and this is thrown into the

blood in considerable quantity. Sometimes the demands upon the thyroid are so great that they cause an enormous overgrowth of this organ, which becomes too active, and mischief is done by derangement of the body from an excess of this thyroidin. It is only recently that we have found out that goiter is probably produced by poisons which over-excite this gland. It is now pretty well established that goiters of all sorts, chronic as well as acute, originate from these poisons generated from the flesh of animals which has undergone putrefaction in the intestines.

But this wonderful arrangement does not end there. This thyroidin which is put into circulation, by and by finds the suprarenal capsules—peculiar glands that are located at the top of the kidneys, and the suprarenal capsules are notified that adrenalin, their particular product, is necessary. This is a ferment which, when present in the blood, causes the oxygen of the blood to combine with the poisons which are present in the blood, and so destroys the poisons and purifies the blood. This is a very wonderful combination of functions. The poisons are recognized by the pituitary body; the pituitary body notifies the thyroid; the thyroid notifies the suprarenal capsule, and the suprarenal capsule makes the adrenalin which destroys the poison.

PHYSIOLOGIC MEDICINE

(Continued from page one)

minds of men took actively hold of the problems of life, and light began to dawn where for ages only darkness had reigned. During this period of decline every art and science suffered decay, and there was a universal embargo upon progress, but with the breaking of those bonds men began once more to go forward.

Medicine Suffered

with other useful sciences, and became involved in a mesh of superstition and traditional practices from which it has taken long ages to extricate it. It is surprising how strongly men become attached to error, and how unwillingly it yields to truth. The practice of medicine was surrounded with a halo of mystery that was intended to protect the profession from the unholy hands of the common people, and these sought relief in many foolish and often harmful superstitions which have been handed down through generations. Still, many of these notions of treating the sick came so near the truth as to reveal some of the underlying principles.

Priessnitz, a peasant in the Silesian Alps, accidentally discovered the true principles of healing over a century ago, and handed them down to posterity. And so, the light has gleamed forth here and there.

It Was About Forty-Five Years Ago

that a small company of people assembled in this city having a common interest in the promotion of right ways of living and the best methods of treating disease. They organized an association and established a water-cure institution in a small-sized farmhouse in the edge of the city. They had no special knowledge of medicine, nor of physiology, nor were they cultured as scientists;

they saw men as trees walking, but the dim vision was sufficient to convince them that something ought to be done, and so they called themselves "health reformers." They established a magazine to which they gave that name, and their institution was styled the "Health Reform Institute."

But the title savored of quackery, since the world has always been annoyed by self-styled reformers, and they were consequently, by the popular voice, classed in that unenviable company familiarly known as "cranks." Under such a stigma the cause did not advance nor gain many friends, and attracted the attention of none who could be of any assistance in gaining a foothold. For a dozen years the undertaking remained in that unrecognized state.

The World Was Not to Blame

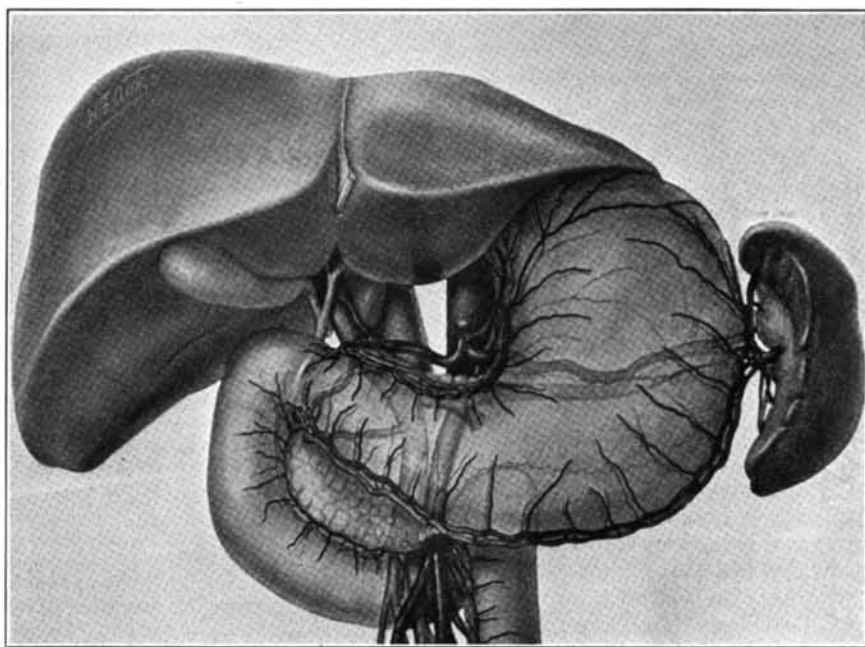
for refusing to recognize the movement as legitimate, because, although the promoters were honest and earnest, and though they had the beginnings of a great work, they had not the scientific knowledge to enable them

At the present time the Sanitarium system, or what is frequently called the "Battle Creek Idea," is firmly established in the confidence of the scientific world.

It is natural that those who have for over thirty years stood by this movement, and have experienced its struggles for recognition, have fought the battles with prejudice and contumely, and have at last demonstrated to the world the unquestionable soundness of the position taken by the Sanitarium in the days of its unpopularity, should feel a sense of gratitude for what has been accomplished. To be sure, light and knowledge have come to those who were carrying on the work, as it advanced.

The Sanitarium Does Not Pretend

to be the originator of all its methods; it only claims to have assembled methods based upon the most scientific principles and practices in therapeutics. It has espoused the cause of physiologic curative measures. It advocates no fads, and has no specific cures; it does not claim to do miracles in healing,



STOMACH AND LIVER, WITH GALL-BLADDER AND BLOOD-VESSELS

to give proper direction to their own work. They were the means of curing many cases, but their methods were desultory and empirical, and many of them had no relation to the real philosophy of healing.

The needed help came to the institution about the year 1877, and an entirely new regime was instituted. A solid foundation for the system of therapeutics was sought for in scientific facts, and not a step was taken that could not be defended and vindicated on the best of grounds. Gradually people began to perceive a system and a great body of truth back of it. Men of influence and scientific knowledge began to observe the working out of these principles. The results appeared in a constant stream of people who came crippled, weak, and in their last extremities, and returned home with renewed health and strength.

but simply to act as aid to the healing power that inheres in the human system.

This is a legitimate field of medical practice, and the Sanitarium does not stand alone in this field by any means; its coadjutors are numbered by thousands, and they are fast including all intelligent and progressive members of the profession. This institution has an advantage in the apparatus and appliances which it has assembled over perhaps any other establishment, and far more than can be handled by the physician in private practice. But at the present time there is no war between the medical profession and the Battle Creek Sanitarium. They have come at last to understand one another, and the profession perceives in the principles and methods advocated and employed here the nearest approach to the true ideal in the healing art that has been seen on earth.

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A WASTEFUL RACE

PRODIGALITY may be said to be characteristic of the American people. In this they are in some respects at least widely at variance with the ways of those people who have been exposed to the hardships of unproductive lands, or overcrowded countries whose resources have been overtaxed to support, even meagerly, their teeming populations.

This continent spread out before our fathers in broad expanse of latent resources and offered to those who would take them the greatest opportunities for wealth and progress that have ever been set before any people. As the country was being settled, there was always plenty of room a little farther on, and so the tide of immigration simply pressed each year farther west, and found the same or better chances awaiting them in the forests or plains of the great virgin territories. Rich mines were discovered, and vast fortunes have been poured out upon us; the earth opened and out gushed vast quantities of oil; and from numberless quarters what seemed to be boundless sources of wealth appeared before the people who obtained homes and foothold in the new country.

But such fortune is not after all the very best thing that can happen to people. It is very fortunate rather that there are no more "lucky fellows" in the world than there are. It is a blessing to us all who have to practice some degree of economy and to labor for what we have. This lavish provision of nature spread out in our vast country has been really the source of more unhappiness and distress and oppression than it has ever produced of real peace and contentment.

Through having things so freely bestowed upon us we have learned to live high, to be wasteful and extravagant; we have already sown the seeds of a harvest of degeneracy. The habits we have developed are not simply those of wastefulness in wealth and natural resources; we have not only slaughtered our forests, wasted our minerals, exhausted our soils; we have done worse than that by throwing away our strength and vitality, and

sacrificing the sturdy manhood and womanhood of the generations that slew our big trees and burned them in heaps. We have reached a time when timber is scarce, and we sigh for the very forests that have been so ruthlessly destroyed; we are sorry to observe the wornout farms, and the silent well derricks; and we are alarmed as we contemplate the fact that we have nearly reached the limit of our expansion and of many of our resources, while our population is increasing by millions and no one knows how to stop the tide or when it will stop of itself.

But a far more serious aspect faces us in the low state of our vital resources. Is it indeed true, as stated by Professor Fisher elsewhere in this paper, that we can but rarely find a healthy man or woman? Are we a nation and a race of defectives and is the vital stock running down each year? Undoubtedly this is the case. Then laying aside for a moment the call for conservation of resources in a positive way, should we not earnestly, each for himself, take up the work of stopping the leaks, and checking the awful wastes that threaten to desolate us? The reckless expenditure of health and strength and endurance in harmful habits of living is more sad to contemplate than are our forest fires, sad as they are.

NATIONAL VITALITY

(Continued from page one)

them speak in later evenings. To-morrow night Mr. Gifford Pinchot is to speak on the first of these three subjects. Undoubtedly we spring from the earth, and an essential of our continuance on this earth is that we hold sacred the trust that we have in transmitting it unimpaired to our descendants. It is especially important, if not more so, that we should conserve ourselves; and, without the conservation of our political and other social institutions, we shall not have the means for improving our health or our natural resources.

I am to speak of the

Conservation of Our National Vitality,

a subject in which you certainly are all interested, because you have come here in order to conserve and improve your own personal vitality. And I am interested in it because I have passed through worse experiences, I suppose, healthwise, than most of you who are present. I served a long apprenticeship in regaining health, and, like all things that cost, health has become infinitely precious to me. It was twelve years ago, nearly, that seemingly out of a blue sky, I was told I had tuberculosis of the lungs, and condemned to three years' exile from my work at Yale. Having succeeded in a way, I found, on returning to Yale, I must spend three more years in doing what might be called half a man's work.

At the end of these three years I happened to visit the Battle Creek Sanitarium. Having

examined the place with reference to statistics of sanatoria, I took Doctor Kellogg into my confidence and told him that while I was a well man,

I Had No Endurance.

I asked him if he could make any suggestions. He gave me an examination of the thorough kind that you all know about, and told me that if I would follow certain simple directions, he was sure that within two weeks I would see a great improvement, and within six weeks I would be doing double the work I had been doing before. This seemed to me very tall talk; but it worked out even better than Doctor Kellogg had said. Within a month I was doing a full man's work, and have done that and more ever since. In fact year by year, as time goes on, my power to work has increased.

Having attained the power to work, I became interested in analyzing the conditions which make for that power, and began to study the degree of impairment of that power in this country. The more I have studied, the more impressed I have become with the vast extent of ill health and the immense room there is for improvement. I have received the confidence of a great many people in regard to their personal shortcomings healthwise; and I have come to the conclusion that there is scarcely a well man or woman in this country after the age of forty.

I Mean Ideally Well.

If you ask people if they are well, they will say, "Yes, I am pretty well." But if you ask them if they have sound teeth, if they have gray hairs, or baldness, have indigestion, if they ever catch cold, if they are troubled with rheumatism or neuralgia, or any of the so-called minor ailments, they will confess. "Oh, yes, I have a little trouble with the heart;" "My liver sometimes makes me bilious;" "I have a tendency to bronchitis;" "I catch cold many times during the winter;" "My kidneys do not always act properly;" "I am subject to sick headaches," and so on.

Not only is there great room for improvement in respect to diseases, restoring people to a passable zero line of health, but above this zero line there are unlimited heights of vitality to which people may climb in varying degrees.

There Are Many Degrees of Being Well

I made two studies in endurance at Yale. One was a study with nine students. They were volunteers who had heard me talk in regard to health, and I organized them into an eating club and tried an experiment with their diet. Through five months they were asked to follow my directions, and not being a physiologist, I did not attempt to prescribe the diet, giving them so many calories, and in given proportions of protein, fat, and carbohydrate; but I asked them to try out Mr. Horace Fletcher's claims that thorough mastication will automatically right almost any man's diet; and I said to these men, "Now, on your table, put everything that you have had in any ordinary eating club, and anything that any man asks for, or thinks that he will want, and simply thoroughly masticate it up to the point of invol-

untary swallowing, and pay strict heed to your appetite; let your hunger and appetite guide you in the amount of food, in the choice of foods, and in the amount of each kind of food."

I found that by following this advice for three months, and watching the record for every meal, of every man for that length of time, the men tended to reduce the protein in their diet, and during the last two months I wished to see what the reduction of protein would at first bring about, and I said "Now, without doing any violence to your appetite, when you are equally content with low-protein foods, choose them rather than the high-protein foods." So, without prescribing any fixed diet, without restricting their range of choice, I gave them simple directions which ultimately resulted in a reduction of their protein to about one-half of what it was at the beginning of the experiment, and a



PROF. IRVING FISHER

Reduction of the Consumption of Flesh Foods

to about one-sixth. These were not proscribed; the men were not prejudiced against them; they were told, on the contrary, to eat all that they wanted of these foods; but they found that by thorough mastication they gradually lost their taste for such foods, and began to enjoy more the cereals and the other foods which are elaborated in the mouth.

And as a consequence of that experiment I came to have a tentative theory as to why we in this country are high-protein feeders and eat a great deal of flesh foods. The explanation seems to be because of the quick-lunch counter habit.

We Are in This Country Fast Eaters

because we are fast livers, and having been fast eaters, we naturally and instinctively turn to those foods which we can eat fast with the least harm. Now it is a characteristic of meat foods that they do not require the thorough mastication that the cereal foods require. You will find that the animals that

live on flesh foods are food bolters. The carnivorous animals, like the dog, gulp their food down, and that kind of food can be gulped down with the least harm of all foods. But you can not gulp down bread and butter, and cereal foods in general, without damage; and I suppose there naturally arises an instinctive distaste for that sort of food by those who eat fast; and the instant you stop eating fast, you want more bread and butter, you want more of those things which it is good to chew and which, if you chew, give better digestion.

So these men in these five months practically reduced their flesh foods to nothing, and reduced the protein in their diet to one-half of what it had previously been. But the main point is that their endurance greatly increased. They were given three tests, one at the beginning, one in the middle of the five months, and one at the end; and it was found that the endurance of eight out of the nine men had increased about fifty per cent in the first half, and about an equal amount in the second half; so that at the end of the experiment these eight men had more than doubled their endurance.

Endurance vs. Strength

The ninth man was a black sheep, who did not stick to the experiment, and the other men complained of him. I decided I would not interfere. It was rather convenient to have one exception, to see if he turned out differently from the other men; and sure enough he did. At the end of the experiment he was the only man who had not increased in endurance, but had somewhat decreased.

Now, by endurance I mean something different from strength. Strength is the utmost force that a muscle can exert once. Endurance is the number of times you can repeat an exertion which is well within the strength.

The Second Experiment

was with forty-nine different subjects who were chosen with respect to their diet, and tested as to their endurance. I took different men with different diets and subjected them to the same tests. I found it hard to get a number of men at Yale who had low-protein, but while I was trying experiments I happened to find a man in the gymnasium who said he was willing to take the experiment, and I asked him to hold his arms out straight, and he broke the record. I asked him about his diet, and I found that he ate very little meat, was on a low-protein diet. I asked him whether he had any principles in regard to it, and he said no, simply that he had to economize, and meat foods were dear, and he was trying to go through college with the least possible expense. Then a number of other men were tested. There was a man who was a long-distance runner and who was supposed to have great endurance. I found he was a high flesh-feeder; and while he was doing the experiment, it occurred to me that I would test myself, which I had never done before. I thought I might as well take my own medicine. So we both held our arms out. He was much younger than I, and apparently was a man of much greater vitality and endurance; but at the end of eight minutes and fifty-four seconds his arms were down in spite of all the efforts he could make to hold them up. I had never tried the experiment before. But I found my arms were not even tired when his dropped, and I continued until thirty-two minutes were up, which, at that time, was a record of which I thought I could be proud; but I had not yet visited the Battle Creek Sanitarium to see what could be done here.

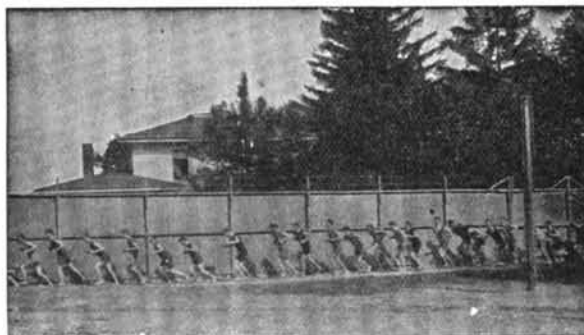
I brought out here a young physician from New Haven who was a college football man, and who was much interested in sanatoria; and I had him and one of the physicians of

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 of this school with 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 Sanitarium face each other in the same way and have a race. And this football player, who was a great believer in meat, only held his arms out about half the time the other man did, if I remember correctly. And in general, as between the men on high and low-protein diets, the men on low-protein diets far outdid the others. It was not a matter of ten per cent, twenty per cent, or fifty per cent.

It Was a Matter of Multiples.

The men who had the low-protein diet were several times as good. For instance, in taking this test of holding the arms out, the meat-eaters could not hold their arms out over fifteen minutes. Fifteen minutes, I think, was exceeded only by one man who was a high-protein man, and he was a baseball player who was accustomed to use the deltoid muscle. When I came to the Battle Creek Sanitarium, a number of men held their arms out over an hour; and one man, Doctor Waggoner, whom I see in the audience, held his arms out three hours and twenty minutes. He stopped there simply because it was 200 minutes, which was a round number, and he didn't want to keep it up all day.

Equally divergent results were obtained from the test in deep-knee bending; that is, stooping to the floor, and raising one's self again. That is a very severe test, and I will never subject any one to it again. I was really fearful for the health of one of the meat-eaters of Yale who was supposed to be an athlete, who in consequence of this test thought afterward that he had paralysis, and really seemed to have the symptoms for several days. Fortunately, for me as well as for him, he got well; but most men who were on a high-protein diet were heavy meat-eaters and could not do this deep knee-bending more than 325 times without serious results. The men on a low-protein diet, whether they were athletes at Yale or nurses here at the Battle Creek Sanitarium, found the 325 was nothing at all, and the record in this experiment went up to 2,400; and after the experiments were over, a nurse at the Sanitarium here said that he had been training and thought he would like to try to beat that record; so he was given the opportunity, and he was witnessed by my brother, who was here at the time, and by Professor Stagg, of the University of Chicago, and he did the deep knee-bending 5,000 times, which, so far as I know, is the world's record.

(To be continued)

MEDICAL MISSIONARY CONFERENCE

As this issue of our paper goes to press, the meetings of the Medical Missionary Conference are getting under way in the Sanitarium chapel. For the past two days there have been many arrivals, and it is estimated that over one hundred missionaries are already in attendance. About three-fourths of the speakers are medical men and women who have been for years contending with disease and suffering in distant parts of the world. It is indeed a very great privilege to listen to the reports and experiences they bring.

For the convenience of our local readers as well as in the interest of our distant subscribers, we present here the program of the Conference:

Program

THURSDAY, JAN. 5, 1911

Registration of Members at the Conference Office, South Corridor, first floor.
12:00 Noon. Dinner in South Dining Hall for Members, City Pastors, and Sanitarium Staff. Guests assemble in Fifth Floor Parlor at 11:30.

First Meeting Thursday Afternoon

2:00-4:00. REV. CHAS. C. CREEGAN, D. D., Presiding.
Hymn.
Scripture Reading and Prayer by BISHOP J. M. THOBURN.
Song by Conference Quartet.
Addresses of Welcome:
To the Sanitarium.
J. H. KELLOGG, M. D.
By the City Pastors.
REV. B. F. TABER.
Responses.
REV. ISAAC T. HEADLAND,
F. D. SHEPARD, M. D.
President's Address.
REV. C. C. CREEGAN.
4:00 to 5:30. Reception in the Chapel.

Second Meeting Thursday Evening

7:30. The Clock Strikes Twelve in Sinner.
FRANCIS F. TUCKER, M. D.
How Medical Mission Work Opened a Village to the Gospel.
P. H. LERRIGO, M. D.
Medical Missions in Central India.
LESTER H. BEALS, M. D.
Medical Work for Women in India.
MARY R. NOBLE, M. D.
Our Devil Refuge Hospital in Hainan.
F. J. KELLEY, M. D.
Industrial Education in the N'Dau Tribe.
C. C. FULLER, C. E.
Place of the Medical in Missionary Work in Africa.
W. L. THOMPSON, M. D.

FRIDAY, JANUARY 6

8:30 to 9:30. Devotional Service.
Led by REV. JOSEPH K. GREEN.
11:30 to 1:00. Discussion of Medical Topics.
Led by DR. FRANCIS F. TUCKER.

Third Meeting Friday Afternoon

2:30 to 4:30 P. M.
Present Political Situation in Turkey.
REV. ALEXANDER MACLACHLAN, D. D.
A Present Missionary Opportunity in Turkey.
F. D. SHEPARD, M. D.
Twenty Years of Medical Missionary Practice in Pekin.
MRS. MARIAM HEADLAND, M. D.
West China.
HARRY L. CANRIGHT, M. D.
The Capacity of Indian Youth for Christian Service.
REV. W. A. MANSELL, D. D.
The Fight Against Tuberculosis in South India.
LEWIS R. SCUDDER, M. D.

Fourth Meeting Friday Evening

7:30. A New Force in an Old Empire.
REV. ISAAC T. HEADLAND
The Woman Physician in India.
MARGARET O'HARA, M. D.
Affairs in the Kongo Belge—Past and Present.
REV. JOSEPH CLARK.
Work Among the Lepers of India.
MARCUS B. CARLETON, M. D.
Young China.
MR. M. U. DING, China.
The Gospel in Persia.
REV. E. W. McDOWELL.
Medical Education in India—The Need and the Call.
W. J. WANLESS, M. D.

SATURDAY, JANUARY 7

8:30. Devotional Service.
Led by BISHOP J. M. THOBURN.

Fifth Meeting Saturday Forenoon

10:30. Christianity in Korea.
REV. GRAHAM LEE.
The Opportunity for Christian Nurses.
MISS E. M. MINGER.
W. J. WANLESS, M. D.
12:00 to 1:00. Discussion of Medical Topics.
Led by W. J. WANLESS, M. D.

Sixth Meeting Saturday Afternoon

2:30. Question Box.
Opened by DR. R. H. HARRIS.

Seventh Meeting Saturday Evening

The New Hygiene, a Stereopticon Lecture, by
J. H. KELLOGG, M. D.

SUNDAY, JANUARY 8

8:30 to 9:00. Devotional Service.
Led by DR. R. H. NASSAU.

Eighth Meeting Sunday Forenoon

10:30. In the Parlors.
The Evangelization of Turkey.
REV. JOSEPH K. GREEN, D. D.
12:00. Discussion of Medical Topics.
Led by LEWIS R. SCUDDER, M. D.

Ninth Meeting Sunday Afternoon

2:30. Medical Work an Introduction to the Gospel.
E. G. SMITH, M. D.
Instances in Medical Work in Eastern Arabia.
S. J. THOMS, M. D.
The Achievement of a Medical Mission in Forty Years.
H. T. WHITNEY, M. D.
Medical Work in British East Africa.
ELIHU BLACKBURN, M. D.

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.

Medical Work in Bolivia.
REV. J. C. FIELD.
The New Woman of China.
MRS. J. W. BASHFORD.

Tenth Meeting (Final) Sunday Evening

7:30. Medical Conditions in China.
G. W. D. LOWRY, M. D.
The Medical Missionary's Opportunity
for Doing Evangelistic Work.
CHAS. C. WALKER, M. D.
The Bengali Widow in North India.
EMMA SCOTT, M. D.
Medical Work among the Bhils of Central India.
J. BUCHANAN, M. D.
Twenty Years' Medical Work in Korea,
including Work for the Deaf and the Blind.
MRS. ROSETTA HALL, M. D.
Resolutions.
Farewell Remarks.
ROBERT H. NASSAU, M. D., D. D.
Closing Address.
THE PRESIDENT.

ARRIVALS

THE list of arrivals at the Battle Creek Sanitarium for the week ending January 1 is as follows: Miss Eunice Holmes, N. Y.; Harry Duncan, West Indies; H. E. Hose and wife, Tex.; D. M. Karnes and wife, Milwaukee; C. G. Laughrey, Pa.; Fred H. Clark and wife, Detroit; W. B. Lewis, Chicago; A. V. Vandersmith, Ill.; J. Newton Nind, Chicago; Jane and Marie Weiler, Pa.; Mr. and Mrs. W. D. Corman, Jr., Ia.; Chas. Anderson, Ill.; R. A. Huck, Chicago; H. C. Dowler, Ia.; W. A. Johnston, Ont.; Geo. K. Goodwin, Philadelphia; Mrs. J. W. Watton, Ill.; F. M. Parmelle, Miss.; J. Spencer, Minneapolis;

Mrs. J. Walker, M. D., Pa.; J. B. Newkirk, Mich.; L. J. Dunning, Ind.; A. Milnes and J. R. Watson, Mich.; Mr. and Mrs. A. R. Teachout, Cleveland; G. W. Dorsett, N. J.; Mrs. D. E. Dolle, O.; H. J. Mulrine, City; H. S. Taylor, Ia.; Sir Horace Plunkett, Ireland; Hon. Gifford Pinchot, Washington, D. C.; J. W. Karney, Mont.; Jas. Koger and wife, Ky.; C. E. Lazelle, Boston; Mrs. Geo. Ogle, Mrs. W. E. Riley and Geo. Ogle, O.; D. A. Townsend and wife, Mich.; A. W. Askins and E. A. Askins, Ill.; Fred E. Stokey, Chicago; Olive M. Shimer, Cleveland; Gerda Paulson, Minn.; Kano Ikeda, Chicago; W. A. Frymire, Chicago; Mrs. Emma Blodgett, Pa.; Katherine DeGolyer, Ill.; Hugh Wallace, Detroit; Mrs. J. W. Bashford, China; Mrs. E. R. Hawley, Mich.; Prof. Irving Fisher, Conn.; John W. Scott and C. L. Scott, W. Va.; Gordon C. Adams, Chicago; Euphemia Winkler, N. Y.; A. C. Johnson, Chicago; H. M. Larrabee, Mich.; Geo. H. Royce, Chicago; W. Walker, Mich.; T. McCarty and wife, Ont.; Dr. Geo. F. Gourley, M. W. Horton and wife, and Janet Loomis, Ohio; Ruth D. Jeffrey and S. T. Hutton, Chicago; Mrs. P. Anderson and daughter, Mich.; E. W. McMannon and F. A. Ames, Ky.; C. G. Weneke, B. G. Stephenson and Archibald Orbison, Chicago; W. P. Ladd, Detroit; S. Abels, Brooklyn; M. L. McGill, Detroit; Mrs. M. L. Robinson, City; Mr. and Mrs. S. S. McClure, New York City; M. D. Goldman, Ia.; Mrs. Gilson B. Gray and Miss Catherine Gray, Mo.; E. W. Moore and wife, Mich.; Mrs. Vernon Moore and daughter, City; C. E. Wallace, Chicago; Mrs. Catherine C. Calder, City.

News and Personals

Mr. G. J. W. Kenney, who spent the summer in the Sanitarium, has returned from Melrose, Mont.

Prof. Irving Fisher is spending the holiday vacation with his wife and family at the Sanitarium.

Dr. A. W. Askins, of Findlay, Ill., is visiting the Sanitarium with his brother, Mr. A. B. Askins, who will remain for a course of treatment.

The Sanitarium parlors have been much in use during recent afternoons, when guests have gathered around the big fireplace and listened with much pleasure to music rendered by talented guests at the Sanitarium.

Among recent arrivals are Mr. C. E. Lazalle, a prominent business man of Boston; Mr. H. S. Taylor, a real estate dealer from Des Moines, Ia.; and Mr. J. Spencer, a lumber dealer of Minneapolis, Minn.; also Hon. Alfred Milnes.

Prof. Irving Fisher lectured in the parlor on Monday evening to a large and appreciative audience. His subject was, "The Conservation of Our Vital Resources." This interesting address, a stenographic report of which was taken, will be found elsewhere in this issue.

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 Michigan Agricultural College has kindly remembered us with one of their beautiful calendars for 1911, containing six large pages finely illuminated and illustrated with college views. It is a most convenient article for the office and would ornament a parlor.

Prof. J. B. Newkirk, of the Holland (Mich.) Conservatory of Music, has returned for a period of rest at the Sanitarium. Dr. W. J. Walker, of Homestead, Pa., is among the recent arrivals, and is a friend of Prof. J. M. Morris, superintendent of schools at Homestead, who is well known at the Sanitarium.

That reliable advocate of healthful living, *Good Health*, takes up the forty-sixth year of its mission with fresh vim and increased ability. This most valuable magazine has never been so popular as now, and year by year the public is coming more and more to understand the real value of the principles upon which it stands.

Mr. and Mrs. S. S. McClure, of *McClure's Magazine*, are spending a week at the Sanitarium for a holiday rest. Mr. McClure is the picture of robust health and abounding vitality. He is a firm believer in the value of the low-protein diet, which he claims has doubled his ability for work and quadrupled his endurance, and he hopes will add twenty-five years to his working life.

Patients have been coming into the Sanitarium quite rapidly since Christmas. Among the recent arrivals who have returned to the Sanitarium are Mr. Chas. Anderson, of Chicago; Attorney and Mrs. Fred H. Clark, of Detroit; Mr. A. L. Doremus, of New York City, son of the eminent Professor Doremus; also Mr. Geo. H. Royce, of Chicago, who has returned for the winter.

Dr. Wesley J. Bailey, former graduate of the A. M. M. C., was married to Mrs. Mabel Watson, of the Sanitarium family. Mrs. Watson was formerly engaged in mission work in Africa, where her husband, Joseph Watson, died of fever eight years ago. Doctor and Mrs. Bailey were married at the home of her parents, Mr. and Mrs. Aldrich, and left for Williamston, Mich., where Doctor Bailey is in medical practice.

Some sixty of the leading business men of the city gathered in the parlors of the institution on Tuesday evening to meet Sir Horace Plunkett, Mr. Gifford Pinchot, Prof. Irving Fisher, and Mr. McClure, and afterward sat down to a banquet in the south dining hall, which represented in a very typical way the Sanitarium bill of fare, and which all admitted to be in no way lacking in gustatory delights.

On Wednesday afternoon a reception was given in South Hall parlor to the students and faculty, on the occasion of the opening of the winter term of the Normal School of Physical Education. The exercises consisted of a farewell to Miss Wade, a teacher in the school, who is to spend the winter with

friends in California, and a welcome to her successor, Miss Ruth Jeffrey, a graduate of both the Sargent and Gilbert Schools of Boston.

On Sabbath afternoon a large audience gathered in the big parlor of the institution and listened with much interest to a lecture by Pastor George C. Tenney on the Holy Land. The lecture was illustrated by stereopticon slides showing places visited by the speaker during a trip through the Orient a few years ago. These beautiful colored slides gave a very excellent idea of the scenes which the traveler encounters in this most interesting of all countries.

On Sabbath morning, Dr. W. A. Mansell preached in the Sanitarium chapel, his subject being "Twentieth Century Missionary Ideals," when he gave a very logical and forceful presentation of the subject, the ideal before the mind of the speaker being a united Christian Church engaged in combined effort for the promotion of the Gospel through Christian missions. He alluded to the large expenditure of money on the luxuries of modern life, and remarked that during the past year two hundred millions were spent for automobile tires and twelve millions for missions.

On Monday, the Sanitarium managers and the members of the Sanitarium medical staff had the pleasure of meeting at a midday lunch, the distinguished guests of the institution, Sir Horace Plunkett of Dublin, Honorable Gifford Pinchot of Washington, Prof. and Mrs. Irving Fisher of Yale University, and Mr. and Mrs. S. S. McClure of *McClure's Magazine*. Doctor Kellogg stated that he felt special pride in asking the guests to note the clear complexions and other evidences of health and vigor shown in the faces of his colleagues. Mr. Jacob Riis, when visiting the institution some years ago, arriving in the evening, remarked that he thought the people he met had something of a pale look, but the next day confessed that his first impression had been corrected and that he discovered that it was a clean look rather than a pale look which had attracted his attention.

The meeting of the Sanitarium Christian Endeavor Society was held as usual on Friday evening in the chapel. The subject, "Untrodden Ways," was quite in harmony with the opening of the New Year, and was very ably unfolded by Dr. Rowland H. Harris, who gave a very helpful and suggestive talk upon the subject. The meeting was in charge of the president, Mr. W. C. Kellogg, and a large number took part in the remarks following the presentation of the subject. A beautiful selection from Handel was admirably rendered by Miss Farquharson and her mother. The interest in these meetings is well maintained and a cordial invitation is extended not only to Christian Endeavorers, but to the guests and family of the Sanitarium. The meeting next Friday evening will be suspended on account of the Medical Missionary Conference, which will then be in session.

Honorable Gifford Pinchot, whose name is a household word throughout the United States, at least wherever the question of the conservation of the nation's resources is discussed, has been spending a few days at the Sanitarium visiting with his intimate friends, Sir Horace Plunkett and Professor Irving Fisher. Although brought up in the midst of wealth and luxury, his father being a man of great wealth, he has chosen to devote his life to a most strenuous effort in the interests of the people who will occupy this great country in the centuries to come. One hundred years hence the name of Gifford Pinchot will be appreciated and honored as the people of the present generation can not possibly appreciate and honor it, for the reason that the exhaustion of many of the great natural resources of the country, particularly the timber and the coal mines, will make clear to every one the wisdom of the principles of conservation for which Mr. Pinchot has worked so arduously and so effectively.

The Social Hour on Wednesday afternoon was one of unusual interest. The first item on the program was the reading of some Christmas poems by the Carey sisters, which were illustrated by crayon sketches by Ivers A. Tenney. The enthusiastic audience demanded an *encore*, which was responded to, after which some of the children of the Sanitarium medical staff gave some Yuletide selections, among whom were Miss Janet Martin, whose selection, "My Mama's on a Committee," drew forth an *encore* that could not be refused. Master Irving Barnhart recited a Christmas poem, and little Mildred Wentworth with her new Christmas doll won all hearts by her pretty recitation. Miss Dorothy Walker also sang a sweet little song. The children of the Haskell Home gave a sketch in three scenes entitled "Fun at Another's Expense." This sketch was written by Mr. R. S. Owen, the superintendent of the home, in such a bright conversational style that the children's evident enjoyment in the recitation was most heartily reciprocated by the audience.

Sir Horace Plunkett, of Dublin, Ireland, is an honored guest at the Sanitarium, having come here to spend a part of his vacation, which he had intended to devote to a trip through the West Indies. Sir Horace is known the world over as a humanitarian and public benefactor. While acting during twenty years as Secretary of Agriculture for Ireland, he established more than 2,000 industrial organizations having for their purpose the financial betterment of the agricultural classes, with the result that the misery and distress which prevailed twenty-five years ago in Ireland are no longer to be found. Indeed, the latest bank reports of Great Britain and America show that the average Irishman has more money on deposit at the bank than the average American, thanks to the efforts of this good man who has chosen to devote his life to the welfare of his fellows rather than the amassing of great wealth for himself. Sir Horace Plunkett might boast distinguished ancestry, the splendid mansion which he now occupies having sheltered the Plunkett family for several centuries.

THE BATTLE CREEK IDEA

Vol. IV No. 6

BATTLE CREEK, MICH., JANUARY 13, 1911

Price 2 Cents

THIRD MEDICAL MISSIONARY CONFERENCE

An Extraordinary Meeting at the Sanitarium Brought to a Successful Close on the Evening of the 9th Instant

ALTHOUGH the Battle Creek Sanitarium is not a distinctively religious institution, it seeks a close alliance with every philanthropic agency and work, and is, therefore,

Sundry Questions

Asked by Patients and Answered by Dr. J. H. Kellogg in His Monday Evening Lecture

Q. To what is a lack of acid and pepsin in the stomach due?

A. When a person has typhoid fever the stomach does not form acid; and babies generally have hypopepsia, because they do

Disease is Not a Monster

But a Condition to be Met with Rational Measures — Schools Considering the Diet Question—Portions of a Lecture by Dr. J. H. Kellogg

In undertaking a case in medical treatment, the first inquiry is, What is the matter with this patient? In the next place, How did he get into this condition, and what keeps him in this condition? Then we must re-



THE DINNER OPENING THE MEDICAL MISSIONARY CONFERENCE

essentially missionary in its aims and work. Personal gain does not enter into the enterprise of the Sanitarium in any degree. The only dividends sought by those who have the work in hand is the satisfaction of seeing suffering relieved, sickness and disease removed, and an uplift given to those who have from any cause become cast down.

Very naturally there is a close relation ex-

(Continued on page three)

not require stomach digestion very much. The milk is taken into the stomach, where curds are formed, then the milk is passed on into the intestine to be digested there. A person who has lost his sleep for some time is likely to experience lack of activity of the gastric glands. But a great many people have hyperpepsia. This is a condition in which the stomach glands are over-excited.

(Continued on page four)

move the causes, and take the obstacles out of the way. Then we must do all we can to help the natural powers of the body to repair the damage that has been done. We are coming to understand more and more the fact that the difference between health and disease is purely a relative difference, the same as the difference between degrees of heat and cold. The old idea that disease in general is

An Entity that Must be Exorcised

in some way by some sort of hocus pocus, was born of the days of ignorance, and it is hard to kill, like many other errors.

Even to-day when the Tartar physician has a call to see a sick man, he goes out with his outfit, mounts his horse with his saddle-bags, in one side of which he carries a few crude instruments, and in the other an accumulation of herbs and roots. When he sees the patient, he looks very wise for a few moments, then says, "This is a very, very bad case. This is a very bad devil that has got into you. It will take very strong medicine to get him out." He then goes into his bag, looks over his herbs and roots, to see if he has the right one to drive out that particular kind of devil, and if he does not find it, he writes the name of it on a bit of paper and makes his patient swallow it as a sort of notification to the devil that the next time he will get the remedy itself and he had better be leaving.

It is Not in Tartary Alone

that that old notion is still working. There are still places in the backwoods of America, even, where doctors inquire, "What is the name of this disease?" And when they discover the name of the disease, they proceed to medicate it according to the name, beginning at the top of the list of their materia medica and going down through until they happen to strike something that seems to work well, and the patient manages to survive, or dies.

Some time ago in a medical journal a doctor reported an experience he had down in Louisiana. He was a young doctor, and he had occasion to call in consultation an old white-haired doctor, and he feared he would be in a terribly humiliated position. The patient was suffering from pneumonia and was getting no better, and old Doctor Jones—that was not his name—said, "Doctor Smith, have you ever tried in a case of this sort, the skin of a black cat freshly removed and applied to the patient's chest?" The doctor began to feel better, and he said, "No, no," he had not. "Well, I think that that is a thing that should be done. It might possibly save the patient's life." So a black cat was captured and skinned, and the warm skin applied to the patient's chest. The patient died, nevertheless. The old doctor expressed the opinion that if the black cat's skin had been applied a little sooner, and if the cat had been a little blacker, the patient might have lived.

A popular idea is that

Disease is Something to be Combated,

to be frightened out, or in some way to be conjured out. That is the reason why Good Samaritan Oil, with the picture of the Good Samaritan on it, has such wonderful success; and also "Wizard Oil," with the idea of a wizard associated with it.

I saw something on the streets some years ago that was really quite a lesson in psychology to me. There stood upon the back end of a very picturesque wagon a man delivering an address to an intelligent audience. The people were gathered around in a throng, listening to his words, and he told them of an experience he had in crossing the Atlantic. A sailor fell overboard, and up

came an enormous shark, and swallowed him. Of course, every effort possible was made to save the man. They tried to lower a boat, but the ship was going so fast that it was impossible to get the boat into the water. So they got out a big hook, put a piece of pork on it, dropped it overboard, and the shark smelled of it, but would not swallow it. So he had the pork hauled aboard, and sprinkled upon it a few drops of Wizard Oil and threw it overboard, and the shark snapped it up. They pulled him aboard, laid him open, and sure enough, the sailor was not yet digested; they got him out and succeeded in reviving him by holding a bottle of Wizard Oil to his nostrils, and his life was saved. "Now," he said, "here it is, fifty cents a bottle." And I think he sold one hundred bottles in fifteen minutes.

It is

Strange that People are so Unreasoning

in relation to things that pertain to our physical welfare. I do not know but it is about the same in relation to our spiritual welfare. We seem to be willing to go it blind. A doctor comes in and says, "Do so and so." We do it without asking any questions. The doctor says, "Swallow these pills," and we swallow them without asking what is inside the sugar coating.

Perhaps you remember the story of Doctor Jennings, one of the founders of Oberlin. Doctor Jennings had practiced medicine in Connecticut, and he had come somehow to have little faith in his medicines and in his bleedings and purgings which were all the order of the day in those days; so he tried an experiment. No matter what disease the patients had, he gave them only bread pills. At the end of three years he published the results of his experience and stated that his success had been greater than ever before, and he thought it was his duty to tell the public the secret of his success.

Instead of having the gratitude of that community, as he ought to have had for ever, they immediately became clamorous to get their fees back again, and he became so discredited that he had to leave the country. Then he came to Oberlin, and in company with Father Shippard established Oberlin College. They established it, by the way, as a sort of health reform and diet reform community, something like the Brook Farm. There was no meat served on their tables.

But I am very glad to observe that

Many of the Schools are Awakening

to the real facts in regard to the subject of diet for efficiency and economy. You are all more or less familiar with the experiments that have been and are still being conducted by Professors Chittenden of Harvard and Fisher of Yale, our two greatest universities; and know that as a result of these experiments teachers and students all over our country are investigating this matter and are becoming aware of the far greater efficiency produced by a non-flesh diet.

We have recently had with us

A Representative of a Well-Known College for Boys.

They find that the meat bill is the greatest item of expense. This gentleman studied our system carefully for several days, with

a view of introducing some features of it into the school. And I trust he was sufficiently satisfied with what he was able to observe to be able to recommend it to his faculty.

Flesh is introducing into the body all the while something undesirable. It is true there is food in beefsteak, but there are other things there which are not food, and which we do not want. Among other poisons, there is the uric acid—fourteen grains in every pound of beefsteak; there is the carmin and various extractives in meat, which amount to somewhere about ten per cent. When one takes beef-tea, or beef-broth, or anything of that sort, he has simply asolution of these extractives.

The human body is a factory of poisons. These poisons are thrown out into the tissues, and are washed out by the blood and carried to the kidneys, and the kidneys eliminate them. The kidneys have enough to do without the added burden of eliminating the poisons of meat. In beef-juice there are only seven and one-half calories of food value to the ounce. That is less than the amount of nourishment in half a teaspoonful of corn-starch. When you come to bouillon or beef-tea, there are only three calories to the ounce, about equal in nutriment to as much corn-starch as you could put on your finger-nail. Beef liver has considerable fat in it, and that gives it more calories. Beef soup has eight calories to the ounce. That is very little. Solid oysters contain eleven calories to the ounce, which is the same proportion we have in skimmed milk. Full milk has twenty-one calories to the ounce. Oysters, like skimmed milk, ought to be fed to the pigs, for the pig is a scavenger, and so is the oyster. The oyster lives upon the offal of the sea. The oyster lives in the ooze and slime of the ocean bottom. And there are people who think the oyster is a veritable delicacy. There are people in certain parts of France who consider the earthworm as a delicacy. The snail really is a delicacy compared with the oyster. When I was in the market in Paris some time ago, I saw a great heap of snails. I said to a man, "Is it really true that people eat these snails?" "Why, yes, of course," he said; "If you think nobody eats them, just buy me a quart and see what I will do with them." "How do you eat them?" "We simply dip him down into some hoiling water and that kills him; and as he lets go of his shell we pull him out and swallow him."

Meat and Bacteria

I knew there were some bacteria in meat, but I did not suppose there were so many in it until I sent one of my assistants to a great institution to a prominent professor of bacteriology and of medical microscopy. When the doctor came back, he said, "You will be interested in what the professor said to me. He said that he did not dare to publish to the world the truth about codfish, for if he did, there wouldn't anybody eat it; it would destroy the codfish business, because there are so many germs in it." I said, "All right, then, I will publish it, and I will save him all the embarrassment. Let us get some codfish right away and see what is in it." So we examined various sorts of fish and of flesh.



DR. C. C. CREEGAN, FARGO COLLEGE,
PRESIDENT OF THE CONFERENCE

This is What We Found:

A gram, one-thirtieth part of an ounce, of beef contained 420,000,000 of germs; in a gram of sausage we found 663,000,000 of germs, which would be eighteen billions of germs in one ounce. How many would there be in a whole dinner, then? The temperature inside of the mass of flesh that is cooking or boiling is not sufficiently high to destroy the germs. One of the specimens showed an actual increase because the cooking warmed them just enough to make them grow. If it did not destroy some of the growing germs, it would not destroy the spores. The spores of these putrefactive germs require a temperature of 230° for thirty or forty minutes, and that is a temperature it never reaches in any cooking process except when it is cooked in retorts, and in the form of canned meat.

THIRD CONFERENCE

(Continued from page one)

isting between the Sanitarium and the cause of Christian missions, and during its entire existence those who have given their lives to the service of humanity have ever been welcome as its guests; and special consideration has been given to those missionaries from distant lands who have returned home on furlough impaired in health and strength, for the purpose of recuperating and returning to their fields. On account of this arrangement there is constantly at the Sanitarium, as might be stated, a varying number of

Missionaries Under Repair.

These represent all the various Christian societies, no distinctions being made, and their presence exerts a favorable influence upon the work of the Sanitarium in many ways.

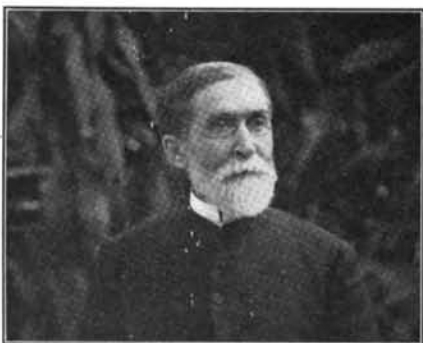
The heroic spirit with which they have left home and nearly all that makes life pleasant to give their lives to strangers, and often to people who are low down in the scale of humanity, is a constant inspiration. The reports and descriptions which they bring back of the countries and people where they labor, and of their own personal experiences, form the subjects of many interesting addresses in our parlors and public meetings. Their Christian spirit and example is helpful in many ways.

Once each year the American Medical Missionary Association, through its Board of Managers, arranges for

A Conference of Missionaries,

principally medical missionaries, although not exclusively so. Invitations are sent out to all the missionaries who are in this country on furlough, so far as their names can be obtained. The conference is appointed at a time of year when the number of patients at the Sanitarium is at about its lowest, immediately after the holidays.

The conference this year has just closed, being held according to appointment, January 5 to 8. The meeting has been a pronounced success from every point of view. The attendance was larger than at any previous



BISHOP J. M. THOBURN, OF INDIA,
VICE-PRESIDENT OF THE CONFERENCE

ious conference, consisting of approximately one hundred and fifty missionaries, fully two-thirds of whom were doctors. The meetings were held in the Sanitarium chapel. The session was opened with a dinner at noon on Thursday, January 5. The picture on the first page shows the dining-room at a time while the guests were assembling; ultimately the tables were all filled. Chas. C. Creegan, D. D., President of Fargo College, N. Dak., was the presiding officer. Dr. Chas. E. Stewart, of the Sanitarium staff; Dr. Robert H. Nassau, of Philadelphia, and Bishop J. M. Thoburn were the vice-presidents and assisted in conducting the conference. Dr. J. H. Kellogg was chairman of the executive committee, assisted by Dr. R. I. Harris as vice-chairman, Geo. C. Tenney as secretary, and Mrs. Geo. D. Dowkontt as associate secretary.

One remarkable feature of the entire schedule of the meetings was that in a list of forty-four speakers

Only Two Failed to be Present

at the time their speeches were due, according to the program presented in these columns last week. It may be truly said of

every one of these addresses that they were effective, thoughtful, and able presentations of their various topics, and many of them were of an intensely thrilling character. Throughout the meeting the utmost harmony characterized every feature. Missionaries of all denominations met together in the bonds of most intimate friendship and sympathy, and from first to last no discordant note was heard. It was the decided opinion of all that, all things considered, it was one of the most remarkable gatherings held in missionary annals, especially from the medical missionary standpoint, for excepting at the great ecumenical councils held ten years apart, it is probable that no such number of medical missionaries have ever been assembled before.

We are reluctant to mention the names of a few who might be deemed leading missionaries, lest we should seem to be slighting others, for all were entitled to the utmost honorable credit. But we can scarcely forbear to mention the names of such men as Dr. Jos. K. Green, who spent fifty-two years in Turkey; Bishop J. M. Thoburn, who spent fifty years in India at the head of the Methodist missions in that country; Dr. R. H. Nassau, who labored for fifty years in Western Africa, the so-called "White Man's Grave." These men have retired from the mission field but still retain their vigor of mind and enthusiasm for their calling.

We were also favored with the presence of Dr. Isaac T. Headland, of the Pekin University, and his wife, Dr. Mariam Headland, for many years Court Physician at the Chinese Capitol; Dr. W. J. Wanless, president of the Indian Medical Missionary Association; Dr. F. D. Shepard, of Aintab, Turkey, who through his many years of faithful ministrations has gained to a remarkable degree the love and confidence of the Turkish authorities and people. His services to the sufferers of massacres in recent years has made him famous throughout the world. He



DR. R. H. NASSAU,
VICE-PRESIDENT OF THE CONFERENCE

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"HIGH LIVING"

OUR language is often so ambiguous and uncertain in the meaning of its terms and idioms that many of its phrases are capable of various meanings. "High living" may stand for a very low standard of existence, mere beastliness, and in such a sense it is frequently employed. But we mean now the very aristocracy of good living, the very highest plane of physical existence. We were never intended for the low and sensual grade of life. In this respect man is different from the animal kingdom in which he is usually classed. Man is essentially more than an animal, and should not be satisfied either to be classed with animals, or to live on the same plane with them.

Holy Writ tells us that on the occasion of man's creation, the Creator decided that man should be made in the image and after the likeness of the Creator himself. And this decision was carried out. So that mankind is allied to the Deity, and was designed to be associated with divine beings. This being so, it surely becomes us to endeavor in all things to honor our exalted birthright.

As it is quite within our province and capacity to excel all other creatures in intellectual, spiritual, and physical qualities, so it is possible for us to descend much lower in the scale of existence than the irresponsible brutes. We frequently hear certain degraded people ranked with the brutes, which is an undeserved insult to the brute creation, since, having no moral faculty, and no moral status, beasts are neither morally good nor bad. They stand at zero. But it is not possible for us to occupy that position. There is no neutral ground for human beings in the moral world; we are all on one side of the distinctive line or the other, every word and every act is either essentially good or bad.

And this rule of right and wrong is applied to every single thing we do, and each action becomes an element in the make-up of our character. Whether we eat or drink, or whatsoever we do, it is either right or wrong, it serves either to elevate or to degrade us morally. And, after all, it is the moral

standard we are measured by more than by any other of our capabilities.

So it has been rightly said that physical reform lies at the basis of all reforms; and it may be said with equal truth that moral quality is the final aim of all true reform.

PROPHYLACTICS

New terms are constantly appearing, being made necessary by the steps of progress that are being taken. We are so far removed from the knowledge of a decade ago that the language is studded with new terms brought forward to meet new conditions. The term "prophylactics" is by no means a new one, but its use has been greatly increased by the advancing light upon medicine and hygiene that is constantly coming to light.

The word refers to the prevention of disease. It is the science of curing people before they are ill; and refers to measures taken to prevent sickness. It should be an exceedingly popular thing in China, where, as we are told, the doctor is paid for keeping his patrons well, and receives nothing for treating them when they are sick. Under such an arrangement it would be very much to the interest of the medicine man to keep the people from falling ill. Such an undertaking ought to be very popular in any country. The trite old saw that "an ounce of prevention is worth a pound of cure" goes very well as a proverb, and is perfectly patent to any one, but it has little to do with practical life. The policy of the man who refused to shingle his house in pleasant weather because it was not really necessary is fully as sensible as that which leads people to ignore measures for the preservation of health and the prevention of sickness while in health because they are not then necessary.

When typhoid fever breaks out violently in a community, there is a stir made to clean things up; and when smallpox suddenly becomes epidemic there is a great rush for vaccinators; but not till a score of people have been overtaken and some lives have been sacrificed that might just as well have been saved. There is a frantic rush to lock the door after the horse has been stolen, but wisdom suggests that it be locked before.

The true science of prophylaxis is the science of right living. Right habits in all the matters of living serve to raise the system to such a high condition of efficiency that it is immune from disease, and impregnable to its attacks. In its natural state the body is fully able to cope with the invaders that come along threatening the health and life of the people. But a weak spot in the vital economy becomes an open gate for the entrance of the elements of weakness and disease.

THIRD CONFERENCE

(Continued from page three)

was decorated by the Turkish government with an honorable title and entrusted with the distribution of \$50,000 placed in his hands to be used as he thought best.

Dr. Lewis R. Scudder and family were also with us from Southern India, Doctor Scudder being the third generation of missionaries, a grandson of Dr. John Scudder, one of the first, if not the first, medical missionary to be sent out by any board. Dr. H. T. Whitney, for thirty years a medical missionary in China, and his wife were present. We also mention Dr. Alex. McLachlan, of Smyrna, president of the colleges of the American Board in that city; Dr. Joseph Clark, for thirty years in the Kongo region; H. L. Canright, M. D., from West China, one of our own citizens; and Dr. Mary Riggs Nohle, of North India; but time and space forbid our going through the entire list, each one of whom is worthy of honorable mention.

It was decided to hold the next Conference at the Sanitarium at practically the same time next year. The following resolutions were presented at the closing meeting and unanimously adopted:

1. *Resolved*, That we desire to put on record our sincere appreciation of the generous hospitality, helpful attentions, and loving sympathy of the officers and attendants of the Battle Creek Sanitarium, that have marked our reception by their entire body. We pray that a hundred-fold of blessing may be returned to them from Him who reckons the giving of a cup of cold water to a thirsty soul.

2. *Resolved*, That we record our grateful recognition of the divine blessing that has attended this Conference and the benefits it has conferred upon us individually and upon the cause of Christian missions.

3. *Resolved*, That we accept the invitation of the Board of the American Medical Missionary Association to hold the next annual meeting in this place.

4. *Resolved*, That we hereby give expression to our cordial sympathy with the publication of the *Medical Missionary*, which seeks to supply a recognized need in presenting the special subject of worldwide medical missions, and that we would be in hearty sympathy with a fuller co-operation on the part of medical missionaries at large in contributing to it and aiding further in its effectiveness, and in accordance with the suggestion of the present management, recommend appointment annually from our number an advisory and contributing Editorial Board whose regular and scientific contributions would be a recognized feature of the publication.

5. *Resolved*, That the Conference hears with pleasure of the improved condition of the natives of the Belgian Congo, and expresses its appreciation of the improvements effected by the rule of His Majesty King Albert and the Belgian Parliament.

The Conference appoints that a copy of the foregoing resolution shall be sent to the Belgian plenipotentiary in Washington, D. C.

6. *Resolved*, That we rejoice at the stand taken by the men, women and students of China in their reinforcing, by separate appeals, the unanimous action of the Chinese Senate in its determination to finally abolish the production, the importation, and the use of opium during the present year, and that we express the hope that Great Britain will co-operate with China in bringing to a successful issue this greatest of all efforts at the reform of a national vice which has ever been attempted by any nation.

7. WHEREAS, owing to the ignorance, poverty and underfed condition of a large part of the people in Oriental lands, the alarming prevalence of tuberculosis opens up a great opportunity to those who have large means to do a greatly needed service to humanity.

Resolved, That we commend efforts in those lands for the establishment of sanatoria for the treatment of this scourge, along lines similar to those projected in South India.

SUNDRY QUESTIONS

(Continued from page one)

The cause in most cases, when this condition is permanent, is the absorption of poisons from the colon. The use of mustard, pepper, peppercorn, ginger, and things of that sort is very likely to produce a condition of hyperpepsia by over-irritating, over-exciting the stomach. The use of alcohol has the same effect. Alcohol excites the stomach glands to make gastric juice, but it is very poor gastric juice, and the alcohol neutralizes it, and renders it inactive after it has been made; so alcohol is the very worst thing possible, for it irritates the stomach, and after a while the stomach glands are worn out. That always happens when any organ is overworked, whether it is the stomach, liver, kidneys, thyroid gland, or a muscle—any organ that is overworked degenerates, and by and by becomes greatly deteriorated as the result of this overwork.

Q. What is the cause of slow motility in the stomach and intestine?

A. Slow motility of the stomach and intestines is most commonly due to a dilated state in which the muscles have become weak; and it is very frequently associated with a weak condition of the whole body, so there is low motility of every part of the body. There is a lack of vigor and of vital tone in the muscles. The stomach is a muscle, or its walls are composed of three layers of muscles, and when the muscular system generally is in a relaxed tone, when the muscles are soft and flabby, when a person has a chop-fallen appearance, has a long countenance, the muscles are relaxed, the stomach is relaxed, digestion is slow. It is astonishing how the state of general depression influences the work of the stomach.

Q. Is castoria a good medicine for the baby? Has it any sleeping properties in it?

A. If you have a baby you want to dispose of, castoria is an excellent thing. The ancients used to recommend and to justify infanticide; it was the duty of the midwife to strangle the babies at birth when they were not very promising; we do not do that; instead we put our babies to death by slow

process with bottle feeding, and with drugs of various sorts; we drug them just so they won't be so much trouble to us. How many a mother, when the baby cries, gives it a dose of Mrs. Winslow's Soothing Syrup. Mrs. Winslow was not a woman at all; he was an ordinary young man, who got hold of that idea of making money, and he made millions by helping other people to kill babies. Of course, it is largely due to ignorance, but so much has been published about the folly of dosing babies with medicines, that it seems to me that mothers who dose their babies must do it almost knowing that they are doing them harm. Babies are very delicate, they are very sensitive, and it takes only a small amount of a drug to do a baby an immense deal of harm and a lifelong damage. The foundation for most chronic maladies is laid in childhood, or before people are born.

Q. How does bile get into the stomach?

A. Bile can get into the stomach at almost any time. There is an open duct between the liver and intestine, and the bile is poured into the intestine just a few inches below the stomach. There is nothing to hinder the bile from coming up, though it naturally gravitates downward; but it is not unusual or extraordinary for bile to enter the stomach. This is not dangerous; if you have nausea and vomit, and bile comes up, it is because the bile was brought into the stomach by the act of vomiting or retching.

Q. In a case of catarrh of the bowels and autointoxication, is it good to wash the colon every night with a hot enema?

A. It is better than it is to absorb decaying substances that are lying in the colon. It is just as important to keep the inside of the body clean as it is to keep the outside clean. You would not think of going to bed with an awfully dirty face. You even take the trouble to wash the hands and the feet. Why,

then, shouldn't we take care of the inside of the body as well?

The dirt inside is absorbed, the body gets saturated with it, and then it begins to appear on the skin. It is appalling that we have gotten into this state and are insensible to it. We do not seem to think we are in any way responsible for it; but we are just as much responsible for it as we would be to allow a dead rat to lie around the pantry, or to allow the house to be infested with dead cats. That would not be half as bad as to have these dead and decaying things lying around in our own bodies.

Such a state of things is the real cause of the almost universal autointoxication that prevails everywhere in civilized lands, and we are beginning to reap a terrible harvest of chronic disease. Cancer is increasing at the rate of 500 per cent in fifty years! Every twentieth person in the United States is going to die of that awful disease, and it isn't any wonder. Three times as many men die of cancer of the stomach and intestines as women. More women die of certain special forms of cancer, but three times as many men die of cancer of the stomach, because they smoke and chew so much tobacco, and drink so much whiskey and beer. That is the reason for it. It belongs to them because they produce a special form of degeneracy and produce an open door through which the parasites of this disease, if they are parasites, may enter.

Q. What is the correct answer to the question, "Who can minister to a mind diseased, plucked from the memory and rooted in sorrow?"

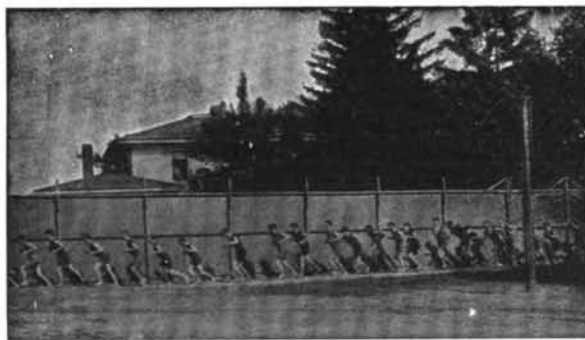
A. The great difficulty in dealing with mind disease is that back of it the body is diseased. I do not think I ever encountered a case of purely mental disease. One may say, "O, I wish I would not worry; I would be well if I did not worry." If he were well,

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WM. W. HASTINGS, DEAN,

SANITARIUM, Battle Creek, Mich.

he would not worry; he worries because he is not well. It is because of the weak state of the mind and the irritated state of the nerves that he worries. That patient must do his best to stop worrying, and the doctor must do his best to correct physical conditions that predispose to worry, and each will help the other. As the doctor helps the man it will be easier for him not to worry; and as he worries less, it will be easier for the doctor to help the physical condition. When one eats indigestible food, the indigestion creates a predisposition to worry, and more worry makes more indigestion, and the more indigestion there is, the more worry, and the more worry the more indigestion; and so it goes on working down all the while. Now, if we can get started the other way, less worry will make better digestion, and better digestion will make less worry; and that is what the Sanitarium is doing; it converts invalids into optimists by furnishing an optimistic atmosphere. How important it is to look up, to cultivate good cheer, dismiss worry, refuse to be scared, refuse to recognize fear as a tangible or material enemy; it is not; it is purely imagination, simply a state of mind. Dismiss that state of mind and the fear can do you no harm.

Q. I lived on a strictly vegetarian diet for two years, and found that I lost in weight and energy, and got so weak that I could not do very much. I then began to live on a mixed diet and eat meat and fish once in a while, and I find that I have been gaining, and I need less food than when feeding on a vegetarian diet. Will you please explain as to this kind of diet?

A. That is not an uncommon experience. A person who has been accustomed to a mixed diet, leaving it off, and taking a vegetarian diet only, not knowing how to adapt the diet to the body needs, sometimes loses in weight, and such a person eats meat generally because he has a craving for it. If there is a craving for something, that craving ought to be satisfied in some way. We sometimes have a craving that is interpreted to be for meat, or for fish, or for oysters; but there is something else that is perfectly normal that would meet that craving, that would satisfy that demand, if we could only find it. Sometimes we have to use a little adroitness in pleasing our cravings. For instance, a lady had a craving, and she thought she wanted pickles, and ate cucumber pickle, the most indigestible things, and she felt better. I said to her, "The next time you have that sort of feeling, try a lemon instead of a cu-

cumber pickle," and she did what I suggested. And the lemon served the purpose just as well. She needed only something that had an acid flavor.

Q. Is the ordinary way of practicing medicine a blessing or a curse?

A. It is certainly a very great blessing. There are mistakes and errors in the current theories. Without doubt we are always learning something new. Fifty years ago there was no such thing as a science of medicine; but we are now getting into scientific medicine; we are finding the foundations by laboratory experiment, and building up a science which is sound and upon which we can rely.

Q. Is the frequent use of the stomach tube a bad practice to follow?

A. Yes, indeed. A patient should never undertake to treat himself by the stomach tube. He may get into the habit of doing it and do himself harm. It is an irritant to the stomach, and sometimes does mischief. Some time ago a lady called on me and said, "Doctor, I am going home, and I want you to have me taught how to use the stomach tube." I said, "If your stomach needs washing out, you should have it done before you go home." "My stomach is all right; but I have been hearing you talk a good deal since I have been here about certain things we ought not to eat, late at night particularly; and when I get home, I shall be invited out to parties and it will probably be late, and I shall want to eat some of the things I see; so if I knew how to use the stomach tube, after I got home, I could wash it all out; and then it would not do any harm." But I did not teach her. We do not believe in teaching people tricks which will enable them to go on sinning. That would be a good deal like a man going into a reformatory and being instructed by the superintendent to break into safes without being caught at it.

Q. What is the cause of catarrh of the stomach?

A. Catarrh of the stomach is a meat-eaters' disorder, just as ulcer of the stomach and cancer of the stomach are. These are disorders that belong to meat-eaters. People who are not meat-eaters very rarely ever have them.

Q. What is the cause of enlarged liver?

A. Overwork. The general and most common cause is autointoxication, because the poisons which are generated in the intestines

and absorbed are all carried to the liver. Alcohol produces enlarged liver. Tea and coffee will do it; tobacco will do it; vinegar, mustard, pepper, peppercorn, horseradish—all those hot condiments produce enlarged liver. Enlarged liver is exceedingly common in hot countries where spices and other hot things are largely eaten.

Q. Would you consider it dangerous to live in a house that had been occupied by a person suffering from cancer?

A. No, not dangerous to live in the house, because I should take pains to have such a house disinfected. This certainly should be done.

Q. What is the best way to build up nerves and keep them up?

A. Simply to build up yourself. Just build up the highest, strongest, most vital health you can possibly get. Make yourself strong physically and mentally. Exercise, sleep outdoors at night, live on a proper diet, avoid all sorts of unwholesome habits, and do whatever tends to health and strength.

Q. What causes gas in great quantity in the stomach?

A. Gas is not generated in the stomach; it is not due to fermentation. Gas that comes up from the intestine ought to pass back into the intestine; but because there is too much acid in the stomach, the pylorus closes and the gas is forced upward by the contraction of the stomach.

DO AND SAY

Two brothers once lived down this way,
If streets were dirty, taxes high,
Or schools too crowded, Say would cry,
"O, what a town!" but Brother Do
Would set to work to make things new.
And one was Do and one was Say.

And while Do worked, Say still would cry:
"He does it wrong! I know that I
Could do it right." So all the day
Was heard the clack of Brother Say.
But this one fact from none was hid:
Say always talked, Do always did.

—Frederic Almy, in *Christian Register*.

ARRIVALS

FOLLOWING is the list of guests who registered at the Battle Creek Sanitarium for the week ending January 8: E. B. Pearson, Ill.; J. A. Hoole, Pa.; W. G. Norris and B. H. Payne, W. Va.; Chas. I. Meyer, Ind.; Winthrop Talbot, M. D., Cleveland; Leo Keller and Mrs. Keller, Ill.; Lee M. Norris and Mrs. Carl Critchett, Mich.; Jno. I. Gibson, Grand Rapids; A. J. Hoole, Buffalo; Geo. W. Reuehard and E. T. Rooek, Detroit; Mrs. H. S. Stokes, Tenn.; Miss Zelma Nay, Ill.; H. Ostrum, Neb.; W. G. Hovey, N. Y.; W. E. DeWitt, N. Dak.; F. McClanahan and wife, Chicago; Miss Burnett, Ga.; Dr. W. W. Peter, Toledo; Georgina Ely, Mich.; Wellington Chillee, Vt.; Flora E. Ayers, Ind.; Mary A. Edwards, Ill.; C. C. Creegan, N. Dak.; M. K. Howe, City; C. C. Fuller, Ind.; Geo. D. Lowry and wife, China; W. P. Clarke, Macedonia; Moses N. Ding, J. H. Worley and wife, Dr. T. S. Wilson,

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.

F. M. Barnhart and Mr. and Mrs. C. D. Bane, Ohio; L. C. Slade, Mich.; Jessie I. Pieters, India; W. B. LaForge, M. D., Mich.; J. O. Kelley, wife and child, China; F. C. Sombito and Lydia Jesspersen, Chicago; Moses Ritchie, Ind.; W. L. Thompson and wife, Rhodesia; Dr. Rosa H. Palmborg, China; Henry C. Pettit and wife, Ind.; Mrs. H. V. Peeke, Japan; Mrs. G. A. Oath, Grand Rapids; Mrs. A. Pieters and Jennie Pieters, Japan; Fannie Perrin, Mo.; Mrs. M. P. Parmelee and daughter, Turkey; L. M. Henry and wife, Egypt; Mary N. Quinter, India; Mrs. Jas. T. Robison, O.; Mrs. E. W. McDowell, Persia; Harry Ibels and Robt. W. Lunt, Cleveland; Mrs. Rosetta S. Hall, M. D., Korea; Mrs. H. Luella Umlauf, N. J.; Robt. H. Nassau, Philadelphia; F. F. Tucker, M. D., China; W. E. Bancroft, India; W. M. Puffer and Mrs. Puffer, Mich.; H. H. Steinmetz and wife, P. I.; Mrs. M. J. Coldren, Mich.; Everett G. Smith and M. C. Smith, Ont.; Mrs. C. E. Ely and A. O. Carman, Mich.; Geo. D. Dowkontt and wife, New York; F. D. Shepard, M. D., Turkey; Mary E. Carleton, M. D., China; H. J. Bostwick and wife, N. Y.; Margaret O'Hara, J. Buchanan, M. D., and M. Buchanan and child, India; P. Ray Morton, E. W. Moore, A. C. Kilpatrick and E. A. Custer, Mich.; Mary Riggs Noble, India; Marian Headland, China; Etta D. Mardin and Mrs. J. K. Greene, Turkey; J. N. Hayes and wife, China; C. E. Clark, M. D., Detroit; Chas. C. Walker, M. D., Siam; W. H. Irwin and Arba Martin, Kalamazoo; Mrs. J. C. Field, Mich.; Bishop J. M. Thoburn and Mrs. Crawford Thoburn, Pa.; Mary A. Cady, Japan; E.

Blackburn, O.; J. Pandora Simpson, Va.; Laura Cleland, O.; Anna Hamilton, Pa.; Emma L. Neild, India; P. H. J. Lerrigo, P. I.; H. O. Cady, Ill.; B. Winget and wife, and Mrs. Lillian C. Jensen, Chicago; Frank G. Wright, Mich.; Mrs. Chas. E. Brown and Eleanor, Kansas City; Inga Peterson, Japan; Rev. Isaac T. Headland, China; Emily R. Jones, Ga.; Sharon J. Thomas, M. D., Arabia; Mrs. H. L. Potter, Mich.; Mrs. Jay Sherwood, Mich.; Barbara M. Niekey, Chicago; Dr. and Mrs. L. H. Beals, Dr. and Mrs. C. C. Tomkins, Mich.; Edw. W. Stifel, W. Va.; J. L. Dunning and H. W. Bowers, Ind.; Mrs. J. C. Marsh, Kalamazoo; Mrs. D. L. Worthington, Mich.; Geo. Hutchinson, Mont.; Paul Barnhart and T. C. Potter, Mich.; A. L. Martin and wife, and Emma Scott, O.; A. H. Serrett, Ill.; H. L. Canright, M. D., and wife, China; E. E. Whipple, Chicago; Anna M. Puffer, Kalamazoo; Paul Page, W. China; John H. Bonbaker, O.; Isabel McIntosh, China; W. J. Wanless, Philadelphia; Mary Grayfield, Indianapolis; A. H. Philips, R. E. Fox, Mary L. Duffer, Nicholas Jaime and C. J. Stauffacher, Chicago; A. D. Gloss, M. D., Ill.; Mrs. F. A. Keith, Buffalo; J. B. Peatling, Mich.; Mrs. R. P. Norton, Mich.; Mrs. Dutrich Lamode, Mrs. F. C. Bowman and Mrs. Geo. R. Flemming, Pa.; J. C. Shedd, Persia; F. R. McKaig, Ia.; V. M. North, Ind.; L. R. Seuder, M. D., and family, India; W. M. Danner, Boston; C. E. Ingersoll, N. Y.; S. W. Stone and Kendall J. C. Stone, Kalamazoo; Mrs. Chas. F. Young, City; Sam Higginbotham and family, O.; Mrs. M. L. Coleman, Emil White and Alice E. Evans, Mich.;

Chas. F. Paul, Indianapolis; J. C. Field, Mich.; Dr. Vernon Blythe, Ky.; I. M. Smith and Carl Critchett, Mich.; R. E. Hoffman, O.; W. E. McPherson, City; Frances D. Brandow, Pa.; Mrs. W. C. Terril, Africa; A. J. Karetz and wife, Kans.; Brownie Willis, Calif.; W. F. Farley, M. D., W. Va.; Dr. Landon C. Moore, Tex.; A. C. Johnson, Chicago; Miss C. H. McNie, Minn.; Mrs. Mary Bacon, Mich.; Miss Florence Bassett, Wis.; John L. Reddick, Mich.; M. M. Marsh and wife, Chicago; Harry Chase, Grand Rapids; Mrs. Shellabear, O.; Anna Lambertson, Philadelphia; Morris Crain, Va.; Geo. A. Lehman, New York City; Mr. and Mrs. Fred Walton, Mrs. F. G. Baston, Mich.; J. H. Lane, City; Albert Gilbert, N. Y.; Mrs. Ferris Greenslet, Boston; Mrs. O. W. Burdats and Mrs. Henry Hess, W. Va.; W. C. Dean and wife, and W. S. Stryson, Ill.; A. C. Kilpatrick and Chas. Claraya and wife, Kalamazoo; Anne H. Martin, Mrs. E. Groll and Miss E. M. Harriek, Chicago; Mrs. H. G. Atwood, Minneapolis.

News and Personals

Bishop J. M. Thoburn will occupy the chapel pulpit next Sabbath morning at eleven o'clock.

The article by Prof. Irving Fisher began in our last number and continued, is interrupted by the sending of the manuscript to New Haven for editing. We hope to have it in hand for next week.

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.

Mr. J. H. Sykes, a prominent business man of Oklahoma, has returned to the Sanitarium for a period of rest and recuperation. It will be remembered that Mr. and Mrs. Sykes spent a large part of the summer here.

We are pleased to have with us again Hon. Gifford Pinchot, who returned to the Sanitarium on the 9th after a lecture tour in Wisconsin and Minnesota. Sir Horace Plunkett is still with us, but will soon bring his visit to a close.

The unusually large arrival list of this week is in part due to the Medical Missionary Conference; but aside from this the patronage of the institution is unusually large, and a large number of patients are already arriving, much sooner after the holiday season than is usually the case.

A swimming tournament was given at the men's swimming pool Monday afternoon in which twelve men participated. A number of swimmers dived from the third floor, a height of thirty feet, into nine feet of water. Many interesting and novel feats were performed by the swimmers, who showed themselves experts in aquatic athletics.

The Christian Endeavor meeting of Friday last was not held, in order to allow the members an opportunity to attend an especially fine meeting of the Conference which was being held in the chapel. The subject for next Friday is: "Lessons from Great Lives." Gen. 22:1-18. This series was selected by leading ministers and laymen on their way to the St. Paul Convention.

Rev. Henry Ostrum, of Indiana, the celebrated evangelist who conducted a successful revival effort here two years ago, is returning to Battle Creek next week for the purpose of conducting a series of gospel meetings for one week. Mr. Ostrum will be accompanied by his singer, Mr. John Hillis, who will be well remembered by most of our people for his beautiful and effective rendering of gospel songs. These gentlemen with the entire company will be guests of the Sanitarium during their stay in the city.

The holding of a two days' Bible study convention, under the auspices of the National Secretaries of the Y. M. C. A. is a contemplated event at the Sanitarium. The date set is the 28th and 29th of January. At least three prominent men will be present from abroad to conduct this convention, and several local teachers will participate in the work. It is hoped thus to encourage the systematic study of the Bible among our young people. The convention will be directly under the leadership of Mr. Harry S. Elliott, and a very interesting program has been devised.

Mr. A. H. Simmonds, Vice-Consul to Mexico, who has been a guest at the Sanitarium for several weeks, departed for his home in Mexico on the 9th inst., much recruited in health and strength. During his stay with

us, Mr. Simmonds has in many ways contributed to the comfort and entertainment of our family. Always genial and pleasant and ready to communicate, he has done much to keep away the pain of homesickness and the clouds of despondency. Although we all rejoice that our friend is able to return to his important post, we shall miss his cheerful face and entertaining conversation.

The Sanitarium family was made very happy on the 13th inst. by the return of Doctors J. F. Morse and Jean Whitney-Morse from a sojourn in the old country of some months. The latter has been taking studies in Dublin, Ireland, in women's diseases; and the former successfully passed the examinations in the Edinburgh and Glasgow Medical Schools, entitling him to degrees from these great institutions. Since finishing the above work, they have traveled extensively on the Continent for the purpose of observation and study in the leading medical centers of Europe.

On a recent afternoon a large number of Sanitarium guests gathered in the main parlor to listen to African Folklore Stories told by Rev. R. H. Nassau, M. D., who was for more than fifty years a missionary in Africa. These stories were the originals of the "Br'er Rabbit" and other stories of Joel Chandler Harris, and are most interesting. Doctor Nassau tells these stories in a most inimitable manner, with appropriate, dramatic gestures which greatly charmed his audience. Doctor Nassau was assisted by Miss Farquharson and Miss Doremus, who contributed several musical selections.

Frequent expressions of interest and hearty appreciation of the Conference have been heard from the Sanitarium guests, and the general feeling seems to be that as a result of this unique gathering from the four corners of the earth, a much more vivid and intense interest will be taken in foreign missions. So much has been learned of the different lands, and the power of missions in moulding the destinies of these nations politically, educationally, scientifically and religiously, that as one guest remarked, "The world never seemed so small as now."

The Conference Quartette rendered most excellent service during the various meetings of the Conference. It was most inspiring to the audience, composed so largely of men and women who had won their laurels in mission service, to see these four medical students, who have devoted their lives to the mission cause, and to listen to their beautiful songs, which so well harmonized with the spirit of the occasion. The members of the quartette were: Messrs. Hoffman, Pearson, Wencke and Frymire. The general singing of the Conference was very ably led by Mr. B. G. Stephenson, of Toronto, also a medical student; and Mr. Drever and Mr. Shiveley were the organists of the Conference and rendered very efficient service.

Rev. Isaac T. Headland, of Pekin University, delivered in the Sanitarium gymnasium on the evening of the 9th inst. a most interesting and instructive lecture on "Chinese Child Life and Court Life." The lecture

was profusely and beautifully illustrated with the stereopticon. Doctor Headland has had an unusual opportunity to observe Chinese life in all of its phases, his wife being court physician in Pekin for many years and intimately associated with the higher classes. Doctor Headland manifested a surprising familiarity with the childish rhymes and games of young China, many of which he repeated with interesting and amusing familiarity, showing in a surprising manner the close resemblance of child life in China to that with which we are familiar at home. Indeed, many of the games and "Mother Goose Rhymes" are almost identical.

Mr. A. R. Dugmore, of England, who hunted British East Africa with a camera, covering the same territory that Roosevelt covered with the rifle, delivered one of his most thrilling and interesting lectures in the gymnasium of the Sanitarium on the evening of the 10th inst. There was a large crowd out to hear this gentleman, who with great intrepidity coolly photographed the wild and ravenous beasts of the African veldt while at the moment they were actually charging upon him. Mr. Dugmore is a lover of animals, and only in cases of absolute necessity permitted them to be shot. The lecture is of itself very instructive and entertaining, while many of the pictures are thrilling and startling. Mr. Dugmore expects to return to Africa next year for the purpose of forming a closer acquaintance with the human natives, in whom he became very much interested. Mr. Dugmore came to us under the auspices of the United Christian Endeavor Societies of the Sanitarium and city.

The Social Hour on Wednesday last was made most enjoyable by the hearty good will with which the guests of the Sanitarium entered into the spirit of the occasion. Outside the weather was lowering and dreary, but inside the parlor looked its brightest and cheeriest. The palms dotted here and there, and the inviting arm-chairs placed carelessly in most inviting groups, and the cheerful blazing fire, all added to the enjoyment and seemed to enhance the holiday atmosphere. Bright, interesting stories were told by Mr. H. S. Simmonds, former vice-consul to Mexico, and by Prof. Irving Fisher. Mr. Hoffman, one of the medical students, gave a fine recitation entitled "How Ruby Played the Piano." Miss Farquharson contributed a beautiful violin solo, and Miss Doremus contributed some good numbers on the banjo. These two ladies have been most kind and have contributed very much to the enjoyment of the Sanitarium family by the exercise of their exceptional musical talent. A novel and interesting feature was a charade by Mrs. Irving Fisher and her daughters, the Misses Margaret and Carol, and her little son, Norton. The word selected was "Conservation" and in a most original and charming manner lent emphasis to Hon. Gifford Pinchot's lecture of the previous evening. The diminutive toy Christmas tree which the children were told was all they could have this year, in order that the children "fifty years hence" might have a tree, literally brought down the house and elicited a storm of applause.

THE BATTLE CREEK IDEA

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Price 2 Cents

National Vitality

Abstract of Lecture in Sanitarium Parlor
by Irving Fisher, Professor of Political Economy in Yale, and President of Committee of One Hundred on National Health

(Concluded)

THREE years ago I was asked by President Roosevelt to become a member of his Conservation Commission, of which Mr. Gifford Pinchot was the chairman; and was asked to write a report on national vitality. This report was really the collation of the results of the observations of physiologists and physicians all over the country who helped me in the various parts of it in which they were specialists. It was found that we had no reliable vital statistics in this country. The best were those of Massachusetts; and there we found that the records showed a gradual lengthening of human life, but not as rapid as that which is going on in some other countries, notably Prussia, where hygiene is more appreciated, and where they have a Department of Health. We found that the improvement going on in various parts of the world corresponds exactly to the attention given to hygiene in those countries; that

Life is Short Where Hygiene is Absent, and that life is increasingly long where hygiene is present and progressive. In Massachusetts, which is perhaps the most hygienic State that we have in this country, the rate of improvement is just half of that of Prussia. This suggests why we need more attention to public health in this country.

Doctor Barr in England worked out that there are two sick people all the time for

(Continued on page three)

MAKE A BUSINESS OF GETTING WELL

That is What Each Patient at the Sanitarium is Expected to Do—Everything Tends to This One Object

IN answer to the question as to how the patients of the Battle Creek Sanitarium put in their time, it may be said in a single sentence that they attend strictly and exclusively to the business of getting well. They are



A WHEEL CHAIR PARTY

away from home and friends, and business, and naturally desire to make their stay as brief as possible. And the physicians are anxious to see their patients recovering rapidly for very many reasons. Humane considerations urge that the period of illness be made as brief as it can be made. The reputation of the institution depends to no small extent upon the efficiency of its work, and this is to a very large degree manifested by the rapidity and permanence of the recovery of its patrons. The Sanitarium physicians are not pecuniarily benefited in any way by lengthening out the term of treatments.

(Continued on page six)

The Body Defends Itself

Against Colds and Other Diseases When Kept in a State of Efficiency—Abstract of a Parlor Lecture by Dr. J. H. Kellogg

THE question of the greatest possible interest is, how to become immune to disease. That we can become immune against disease is proven by a good many things. It is not

a new idea by any means. John Wesley, for example, in his interesting book, "Primitive Physic," says to cure and prevent the rickets the child should be dipped in cold water, and new-dipped every morning, and continue this practice about a year and the child would be cured of rickets and would not get it any more.

That is a good remedy, because when a child has rickets it generally has an intestinal infection which interferes with nutrition, and the poisons circulated through the body cause loss of appetite and prevent assimilation. The effect of cold water is to increase the flow of gastric juice; to increase the number of blood-cells; to increase the

assimilative processes of the body, and so antagonize this disease of degeneration.

Doctor Brown-Sequard

I think Doctor Brown-Sequard, one of the most eminent physicians who has lived in modern times, whose father was French and his mother American, so that he spent part of the time in this country, but the greater part in Paris, was the man who contributed, perhaps, almost more than any other to the advancement of physiologic knowledge in certain lines. He used to treat his patients in a way which seemed very strange. I spent some time with him in his laboratory and

observed his methods.

A man would come into the office and say, "Doctor, I have a sore throat; whenever I venture out of doors or expose myself the least bit I get a sore throat." The doctor would have him sit down and with a wet sponge or wet towel moisten the back of his neck, and then set an attendant to blowing air on to the back of his neck with a bellows. He would keep that up for half a minute. The next day the patient would come back and the same treatment would be repeated for a minute, and the next day for a couple of minutes, and so he would go on increasing the length of the application up to half an hour, and when the patient was able to bear it for half an hour that was proof that he could not catch cold by anybody opening a window. That man was then immune against sore throat because the back of his neck had been trained and so had become able to take care of itself.

"Taking Cold"

Now that is the source of all the trouble that comes from so-called taking cold. The cold, by the way, is not a cold at all; it is a heat instead of a cold; the term is certainly a misnomer. One does not "take cold," but the cold catches him, and he gets a fever. The whole difficulty is in the fact that the skin lacks resistance. A wild Indian who lives in the forest or on the plains, does not "take cold." I remember very well when a boy my mother cautioned me that I must be very careful to put on my rubbers when I went out in damp weather; I must be very careful not to get my feet wet. I said to my mother, "Why do not the cows take cold? They don't wear anything on their feet at all; why should I take cold?" I did not understand the philosophy of it, and there is no really good reason why I should take cold by getting my feet wet; it is not natural that we should do it. The feet are perfectly able to take care of themselves.

Why Does One Take Cold, Anyway?

Simply because either the general temperature or the local temperature of the blood is lowered. If we put cold water on a person's head and keep it on for several hours, frequently he will begin to complain that his forehead is sore and painful and he has neuralgic pains in his forehead; the skin and the flesh are sore. Very often we keep an ice bag over the heart, and after the ice bag has been kept there half an hour two or three times a day for two or three weeks, that patient generally begins to complain of soreness in that region. That is called rheumatism for lack of a better term. It is not rheumatism, but simply a painful, sensitive condition due to the lowering of the blood temperature in that region, so the waste matters have accumulated in these tissues and the nerves and other tissues have become abnormally sensitive.

It is only an illustration of what happens when the skin has not the power of resistance. But here is a lumberman running logs down the river. He is on the logs part of the time and in the water part of the time. His feet and legs are wet perhaps all day long. When night comes he lies down on the bank of the river to sleep with his wet clothes on. He doesn't take cold. A lumberman once

said to me, "I wouldn't take cold all the time on the drive, but when I went into camp I caught a cold in less than forty-eight hours."

The cause, as I said, for taking an ordinary cold, is from the temperature of the blood being lowered either locally or generally. If a person has been perspiring from exercise and sits down and lets the wind blow on him he soon begins to feel chilly. While he was exercising, his muscles were generating heat.

A Muscle Generates Heat

just as a dynamo generates electricity. By the action of the muscle, heat is generated just as by the revolution of the armature of the dynamo electricity is generated, and in a similar way; not in the way a stove generates heat, but in the way in which a dynamo generates electricity, although there is combustion going on.

If a person perspires when exercising, it is because he generates more heat than is needed to keep the body warm, so it is necessary that the body should be cooled, and perspiration is simply the effort of the body to cool off. Bathing the skin with water and allowing the water to evaporate has the effect of cooling the skin. This is the reason why people perspire. Now suppose the perspiring individual ceases to exercise and sits down; it is like putting out a fire or blowing out a light. The extra generation of heat ceases, so the evaporation goes on without any extra heat being produced, because the skin is wet and the clothing contains moisture and causes a chilling of the body.

It takes only a few minutes to produce this result, then in order to warm the body up, the muscles are set into spasmodic contraction and

There is Shivering and Sneezing,

which are signs of a kind of general spasm. When one sneezes he does not sneeze *with* his nose, but *through* it. It is the whole body that is exercising. Every muscle contracts. The feet are lifted up from the floor. There is a jump of the whole body. It would be quite impossible to hold anything steady in your hand when you sneeze; but the motion is particularly of the expiratory muscles. There is a sudden contraction of these muscles with an explosive effort of nature to warm the body up.

When you sneeze, you say, "Oh! I am taking cold." That is a mistake. You have taken cold. Your temperature has been lowered and you already have the cold, and that muscular spasm is the effort of nature to cure it. Now if you want to help nature, the best way is to keep right on exercising. You feel a little shiver started here and you begin to feel chilly, now set your muscles to work as hard as you can. That is the quickest way to stop that shivering. I have had that experience myself repeatedly. Certainly one can prevent himself from taking cold. Suppose you are sitting in church and there is a draft blowing on the back of your neck; you say, "I am going to get a cold. I shall have a stiff neck to-morrow, sure." You don't need to have. All you need to do is to make the muscles contract just as hard as possible and keep them working so they will keep the skin warm so you will not take the cold.

If one is exercising he doesn't take cold, and

One Can Sit Perfectly Still and Work

so hard as to make himself perspire freely by making every muscle of his body tense. The hands can be straight at the sides, and the muscles may be perfectly rigid. Make every muscle of the body rigid and you will see pretty soon that you are breathing hard. Pretty soon you are taking deep breaths. You may say that it is hard to do that, but nevertheless one can sit quietly in church, and look the pastor right in the face, and at the same moment work as hard as though he were running to catch a train, and the person next to him need not know anything about it. So one does not need to take cold because he is sitting still, for one does not need to be idle and relaxed while sitting still. He can do hard work although sitting perfectly still, and get the benefit of exercise right there.

This is simply a matter of developing the natural powers of resistance. The body does not normally lie down and give up when disease assails it. The body fights, and it never gives up. Disease is never manifested in the body until the natural forces of the body have been overcome.

It is a very interesting thing to see what

Wonderful Provisions Nature Has Made

for protecting us against disease. Here is this wonderful skin, tough and impenetrable in the state of health, absolutely impervious to germs, the great enemies of life. The skin is not simply a membrane, simply a dead case in which the body is inclosed, but it is a living membrane. It is a barricade of living beings that are fighting for us, that are defending themselves. There are millions upon millions of little living cells in the skin, that are watching for the germs that come.

The skin is continually covered with germs. This is true of the skin of every animal, it is covered completely over with multitudes of germs. Within twenty-four hours after the death of an animal these germs have spread all through it, so the germs that are found ordinarily upon the skin are found everywhere in the entire body within twenty-four hours after the death of the animal, or the human being. These skin germs set up putrefaction and various changes in the body. In life these cells of the body are fighting these germs off and the germs can only penetrate a little way.

Once in a while a germ gets down deep under the skin, then a boil results.

That is What a Boil Is.

If the resistance is sufficient, germs can not live even under the skin; and whenever a person has boils or pimples upon his skin, or is suffering from skin disease of any sort, it is an indication of lowered vital resistance, so that these germs which naturally belong upon the surface of the body have been able to penetrate beneath the surface and grow and develop there among the living cells.

The skin is the first external wall, if you please, of resistance. We have a lining skin which is still more wonderful in its work in protecting the body against disease. I re-

fer to the mucous membrane which extends from the mouth all the way through the thirty feet of the alimentary canal, and throughout the lungs, which comprise over 2,000 square feet of pulmonary surface. If the lining membrane were stripped out of a pair of lungs and spread out, it would

Cover the Entire Floor of This Parlor,

and this surface is covered all over with these life protectors, layer upon layer of living cells which have for their work to detect the germs which we are taking in with the air which we breathe. The membrane which lines the interior of the alimentary canal would cover a surface of seven square feet. This seven square feet is covered with these wonderful life protectors, which are fighting the germs of disease. The system is like a citadel surrounded by many rows of guards. If the enemy get through the outer row, here is a second row. If they get through that, here is another line; so there are many lines, and the germs have to run the gauntlet of these lines of defense.

The mucous membrane has something more to do than to fight off germs. It is the medium for the various secretions necessary for vital processes. For instance, in the mouth is the saliva. The saliva is not a germicide exactly, but germs can not grow in healthy saliva. That is why a healthy man does not have a coated tongue. His tongue is clean because the saliva will not permit germs to grow, but when this man's blood becomes weak the saliva becomes deteriorated, then the germs will grow, and when he wakes up in the morning his tongue is coated, a bad taste is in the mouth, and he has a bad breath. That is simply because the saliva permits the germs to grow.

In the stomach we find the

Gastric Juice a Powerful Germicide.

It not only prevents germs from growing, but it actually dissolves them so that they are destroyed. So when one eats food which contains germs and the stomach is in a healthy state, the germs will be disposed of. A man who has hyperacidity, an excess of gastric juice, can drink typhoid fever water or cholera water, or any other kind of infected water without any harm, provided his stomach has food in it at the same time. You know there is a very old supposition among the laity, and I think it is well founded, that a person is much more likely to contract disease if the stomach is empty than he is if the stomach is well filled, or if he has eaten food. The reason is that if the stomach is empty there is no gastric juice there, and if he takes in germs, they obtain a hold and grow because there is nothing to disinfect them. But if he has taken food, then there is gastric juice there digesting the food, and the germs that are taken will be destroyed along with the digestion of the food. Men who can digest fried mushrooms can digest typhoid fever, cholera, or any other kind of disease germs. People who have too little hydrochloric acid are liable to take typhoid fever, cholera, or anything else of that sort, because the resistance is low.

As we get down below the stomach there is a wonderful provision there. The intestine pours out a large quantity of mucus which

is protective. It prevents the growth of germs. It also prevents germs from coming into contact with the mucous membrane and so getting into the blood-vessels and invading the body. When a person suffers from mucous discharges it is evidence that the body is fighting germs. It is not the mucus that does the harm. It is the germs that occasion the mucus that we need to get rid of.

There is Another Interesting Discovery

in regard to the mucous lining of the intestine. The mucous membrane is a filter through which the poisons produced by the germs growing there are excluded from the food substances that are absorbed from the intestine. It is possible that the mucous membrane may break down and raw surfaces result through which the poisons can pass and thus avoid this process of filtration. But after

which causes the suprarenal capsules of the kidneys to form an antitoxic substance which burns up the poisonous matters that still remain.

Thus it will be seen that the body is abundantly provided with means for its own protection, and it only remains for us to keep the body in a state of efficiency in order to be protected from colds and from disease in its various forms.

NATIONAL VITALITY

(Continued from page one)

each death each year; so that, as there are a million and a half of deaths each year in this country, or thereabout, there are probably three million people all the time sick. At least one-half of these might be relieved,



HYDROTHERAPY AMONG THE MAORIS IN NEW ZEALAND

the germs have been absorbed from the intestine into the blood, they are carried to the liver and it is the duty of the liver to filter out these germs. So there are several lines of resistance to intestinal poison. First, the mucous membrane, then the liver and kidneys, and finally the thyroid gland and the suprarenal capsules.

It is the function of the liver to destroy the poisons which are conveyed to it. For instance, the indol which is absorbed from the intestine reaches the liver and is converted into indican. Indol is a powerful poison, but indican is a non-poisonous substance. So indican found in the urine is not a poisonous substance, but is an indication that poisons are being produced in the body. The thyroid gland produces a substance

and of the million and a half deaths that occur, more than one-third can be proven to be needless. I obtained this information by taking up in order each of the ninety odd causes of death according to the United States census, and obtaining from experts on these diseases an estimate of how many of these deaths were preventable. On this basis it worked out that at least

620,000 Unnecessary Deaths Occur

every year in this country, and that if these 620,000 people who now die could be given the lives which belong to them, the average duration of life in the whole country would be increased by fifteen years. These are very conservative figures, and I believe that they

(Continued on page four)

The Battle Creek Idea

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VOL. IV JANUARY 20, 1911 No. 7

THE PATENT MEDICINE HABIT

THE immense fortunes that are being amassed by the projectors of proprietary medicines is of itself an indication of the extent of the habit of swallowing the multitude of nostrums that are being placed in the market and advertised far and wide with loud and bold attestations of their wonderful curative properties. The analyses of these compounds, which have been repeatedly published and exposed, show how utterly shameless and conscienceless are those who foist them upon a gullible public, without the slightest purpose or thought of their being capable of doing any good at all, with the positive knowledge in many cases of their absolute harmfulness, and with no other motive than the reaping of a rich harvest of the dollars of the people who are suffering from causes of which they have no knowledge, who undertake to manage their own cases and judge of the nature of their troubles simply by their feelings, and the testimonials that they read in the advertisements.

Somebody (generally a pure fiction) writes describing his case and symptoms, and declaring how he was wonderfully and completely cured by a few bottles of such a remedy, and out of pure compassion to his fellow-sufferers he counsels them to go and do likewise. The poor victim reads the letter and says at once, "That is my case exactly; I will try that." And away goes his money, away goes his health. Perhaps for a few days he feels that he is being benefited because the nostrum contains some opiate that obtunds his symptoms for the time, and this serves as a lure to assure him that if he only perseveres in his course he will surely win out in the end.

Just in the same way that many a man has lost everything for this world and the next at the gaming table in the delusive hope that his luck will turn and bring him back his lost treasures, so the poor deluded victim of the patent medicine habit follows on from one thing to another until he dies in the vain pursuit of the precious boon of health, when

from the first he has never once struck the trail, but has been on the road to ruin, while others are pocketing his dollars with eager greed.

With so many examples before us, with so many voices sounding the warning, with so many reliable and authoritative exposures of the viciousness of the whole system of patent medicines before us, it is astonishing that people will still insist upon being lured to their ruin both in health and purse.

AN INTERESTING ADDRESS ON A THRILLING SUBJECT

REV. J. H. WORLEY, Ph. D., spoke to a large audience in the parlor on Sunday evening. The subject was "An Incident of the Anti-Opium Campaign in China," and his address was listened to with much interest by an unusually attentive audience. The speaker said that the people of Kiucheng province were the first in all China to raise by popular subscription the amount of the government revenue on opium and pay into the national treasury. When this money was raised, the Viceroy allowed the district magistrate to close the government opium warehouses and the smoking dives, and prohibit the importation of Indian opium as well as the home grown. The spirit of reform was so alive among the people that within five months from the first anti-opium meeting, these prohibition principles and the proposition to raise the government revenue was brought to the attention of nearly 400,000 people by means of public meetings and without the aid of the press. When the magistrate issued the proclamation prohibiting importation and even secret use of the drug, there was great rejoicing among the people. But their joy was of short duration, for the opium dealers went to Foochow, the capital, and conferred with opium men there, who in turn went to one of the leading British shipping firms who import Indian opium, telling them that the people of Kiucheng were putting out the Indian drug in order to give a wider sale to the native drug. The manager of the British firm laid the matter before his Majesty's consul, and the consul forced the Chinese Foreign Board to send an order to the Kiucheng magistrate to suppress the proclamation and allow the opium business to go on. The people of Kiucheng in desperation laid the matter before Bishop Price, of the English church, who sent a statement to the Archbishop of Canterbury, and His Grace laid the matter before Sir E. Gray, Secretary of Foreign Affairs. An investigation revealed the fact that the consul at Foochow had acted within the treaty. So a universal demand was heard from the anti-opium people of England for a revision of the treaty, and many who had been apathetic were aroused to action. One of the burning questions which will come before the next Parliament will be the revision of this treaty, and if England will give China a free hand they will soon end the accursed business.

NATIONAL VITALITY

(Continued from page three)

are far inside the mark. The average duration of life in this country is now forty-five years; it might be sixty.

The Financial Cost of Disease is Also Immense.

On the smallest computation, reckoning the capitalized value of the wage-earning power cut off by the deaths now unnecessary, at only \$1,700 apiece, and reckoning the average earning power of those who suffer from illness at only \$700 a year, it is found that we reach the stupendous total of \$1,500,000,000 of waste annually from unnecessary disease and death in this country. I do not know what the actual loss is; all I know is it is more than that.

Of course it is foolish to try to measure human life in dollars and cents, and yet in this commercial country it seems as though that were the only measurement that really counts. In the State of Minnesota there is a law for the benefit of the commercial interests which compels the dairymen to sterilize the skimmed milk that goes to the hogs, for fear that if it were not sterilized it would do the hogs some harm, and that would cause some financial loss to those who raise the hogs; but the cream that is separated from this very same milk and is made into butter and fed to human beings, need not be sterilized, because there is no commercial interest involved. In other words,

Hogs Take Precedence of Human Beings,

because hogs have a commercial value, and human beings have not been recognized as having a commercial value.

There is one commercial interest in this country that does translate into cold cash the value of human life; and that commercial interest is life insurance. Consequently some of us have been trying to get life insurance companies interested in the conservation of human life. The result has exceeded our expectations, so that now some seventy-five per cent of the policy holders in this country, of whom there are fifteen to twenty millions, are in companies which pay some attention to the conservation of human life. The Metropolitan Life Insurance Company plans, during the ensuing year, to expend a quarter of a million dollars in providing nurses for their bed-ridden risks, in order to prolong their lives and save themselves the expense of death claims. We see, then, that there are some commercial interests that are beginning to realize that human life has commercial value. Yet, this is a narrow way of looking at it. The broken hearts, the suffering, the impaired efficiency of men, are far more human and important interests than their mere earning power.

If we are to

Conserve Human Vitality

in this country, we need the co-operation of quite a number of different agencies, and above all we need the establishment of a national department of health. Now, the movement for this department of health has made great headway during the last few years; and yet the great stumbling block to-day is

lack of appreciation of it, especially in Congress.

Before I sit down I want to say that it seems to me we all have a mission here. There is a work to be done by each of us. I think you owe it to the Battle Creek Sanitarium, not simply to leave it with your health improved, but to try to carry out its principles when you go home, and to try to interest your Congressmen in bringing those principles into existence for the nation as a whole. Of course, I am not referring to details; I am referring simply to the broad question of health conservation.

I think that the

Greatest Obstacle of All.

to the progress of the health idea is what you might call human conventionality. Our prejudices often prevent our acceptance of that which is really good. We get used to going in certain ruts, and anything different from those ruts seems to be abnormal. The ideal of life is normality, and to get the true, natural and proper mode of life, as a standard with reference to which we can judge is a great desideratum. But most people become confused between the normal and the average. The two are entirely distinct and sometimes are very wide apart. For instance, note the difference between the average condition of people's teeth and the normal condition of the teeth. I was talking a short time ago with the chief medical director of one of the largest life insurance companies in New York, and he told me he had collected average statistics of weights, and he had taken the average of men's weights as the normal weight; and it never occurred to him that there could be any other standard until he began to study the mortality.

When he discovered the secret of his own statistics, he found that people who were above average weight had a worse mortality than the average of those slightly below the average weight, and those slightly below the average weight had a considerably better mortality; whereas, going still lower, it became worse again. Thus there was a point where the mortality was the lowest, at which point we may assume the normal weight of man.

We found as a consequence a

Fallacy in the Old Statistics—

that although the average weight does increase with age, the normal weight does not. That is, for a man of a certain height, there is a fixed normal weight, and he keeps that normal weight through life—a very natural result, but one which is quite contrary to the preconceived ideas, because confusing the average with the normal. When the average increased, people supposed the normal increased. Therefore they said it was natural for men to grow more stout as they grew older.

So we have our conventional standards based on the average custom about us; and if we find that the average dietary contains meat, or a great deal of protein, we conclude that must be normal; and one of the first studies in physiology and statistics of diet made this very announcement. The author took the average dietaries of several thousand people of the United States in order to ascertain what was the normal dietary. You

might just as well take the average condition of people's teeth to find out what is the normal condition of human teeth.

We owe it to the Battle Creek Sanitarium to treat its principles with respect. Although I can not vouch for everything here as exactly normal, I can, on the basis of all the studies that I have made during the last few years, assure you that in my opinion it is far nearer the normal, its dietetic teachings included, than is the average usage in this country.

people infect their stomachs with catarrh by swallowing while asleep the catarrhal secretion in the nose. In the catarrhal secretion there is a vast multitude of infective bacteria that are capable of communicating catarrh. Catarrh is a contagious disease. Both acute catarrh and chronic catarrh are contagious, and can be communicated. A cold-sore around the edge of the nose or on the lips may be the means of extending the infection.

The same germs that are working in the nose attack the skin, and these germs swal-



CUTTING ICE IN LAKE GOGUAC

CATARRH AND ITS CONTAGION

Catarrhal Secretions Contain Vast Multitudes of Germs Which Carry Disease

CATARRH of one region will lead to catarrh in another region. When one has eczema or salt rheum, in other words catarrh of the skin, and scratches the itching, burning place, he is likely to carry the infection, because the serum is full of bacteria; and these bacteria are in a virulent state. Great numbers of

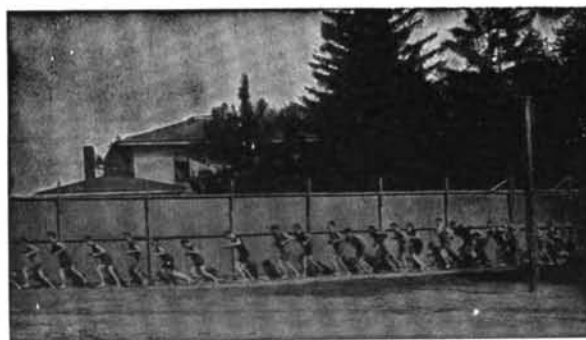
lowed down into the throat and carried into the stomach are unquestionably a cause of infection, or auto-intoxication, intestinal auto-intoxication. When a person has intestinal auto-intoxication, he should exercise the greatest care not only to keep the nose clean, but to keep the mouth and teeth clean also. The accumulation of germs in the mouth may communicate this infection to the stomach. This infection may go on until ulceration is produced. A Chicago doctor not long ago made the assertion that ulcer of the stomach is a beefsteak disease. The same thing might be said of catarrh of the stomach, because

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SANITARIUM, Battle Creek, Mich.

beefsteak is always swarming with germs which are capable of producing a catarrhal inflammation of a mucous surface.

Catarrh of the nose can not be cured by treating the nose. We have two skins, a covering skin and a lining skin. The body is a hollow cylinder. The alimentary canal, the intestinal tube, passes through the trunk of the body. That is the inner cylinder. The skin proper is the outer cylinder, and the body is between the two,—the living parts are between the two cylinders. The outer covering skin and the lining skin communicate at the openings of the alimentary canal, the mouth and the nose. We have twenty-one feet of covering skin and seven feet of lining skin. The man who weighs about 160 pounds has about twenty-eight feet of covering skin, which would make an area four by seven feet if spread out on a level surface. When one portion of this lining skin is affected, the outer skin suffers; and when the outer skin is affected, the lining skin also suffers. If a person, for instance, has a very extensive burn on the side, he is likely to die with ulceration of the mucous membrane, or ulceration of the duodenum,

in consequence of this infection of the surface of the skin. If a person has an eruption on the skin, it is almost certain that he has a diseased condition of the lining skin. So a person who has catarrh of the nose must first of all make his skin healthy. His lining skin is diseased; he never can cure it in the world without making the covering skin well, and the sun bath is one of the very best means of doing that. Other excellent measures are cold bathing, rubbing, exposure of the skin to the air, and particularly taking good care of the portion of the lining skin which lines the colon. This is a very important thing, for the tendency to intestinal autointoxication is a common cause in nasal catarrh.

The winter in Michigan has so far proven a delightful season. There have been no severe storms or extreme cold. The lowest that the thermometer has touched is 6° above zero, and except on that one morning has not been lower than 10 to 12° above. Generally the temperature has been steady at from 20° to 30° above. Such a winter is to be chosen for vigor rather than the more enervating warmth of semi-tropical regions.

GETTING WELL

(Continued from page one)

Consequently all are interested in pushing along the work of restoration as rapidly as can be done consistently with good, reliable, and permanent work. The daily program of the patients at the Sanitarium is planned with the object of the constant improvement of sick ones in view in every feature. Nothing is done just to fill up the time. There is no time to lose, and so it is carefully laid out, and so parceled as to allow competent attention to each feature of the work to be done, and every hour in the day contributes to the desired end.

Recovery from disease demands work, and earnest and constant attention. Disease tears down and wastes the human body, and to check its ravages is a serious undertaking and calls for earnest and determined effort.

It is first of all very essential that the invalid should be most heartily in sympathy with the work that is being done for him. And as he sees, day by day, the work of improvement going on, he naturally becomes interested in the business and takes a lively part in what is being done with willingness and peculiar pleasure. And such an attitude always contributes very materially to the objects to be attained. To place one's self in antagonism to the measures taken, and to have no confidence in the treatments and advice given, would be the utmost folly, and would do much to hinder and forestall any good results being experienced.

The Sanitarium patient does not simply sit around and take medicine, moping meanwhile over his misfortunes; he is expected to take an active hand in the job of getting well. Of course, in the cases of those who are confined to their rooms these remarks are not wholly applicable; but in all cases where the strength to work remains, each one is expected to get into the harness and help, at least, in working out his own salvation. Health can not be poured into a man or woman from a teaspoon. In the great majority of cases one must go back several years in his experience and make up for lost opportunities by working overtime. Perhaps he has lived a sedentary life, and neglected physical exercise, and so he must put in good time till he makes up that deficiency. He owes a debt to nature, and

There is a Mortgage on Him.

that will be shortly foreclosed if he does not get busy and work out that debt, and lift the mortgage.

So he is set to work and some considerable time must be spent in the gymnasium, in the Swedish movement department, in walking, swimming, playing games, until his muscle tone is regained, and the different organs of his body are supported and assisted by a set of muscles that have vigor and strength sufficient for their work. These are pleasant tasks, to be sure, such as the average person delights to perform, but all the same they are part of a real work.

Then, perhaps, by bad habits of diet the body is filled with poisons that have not been eliminated. The liver has become clogged and debilitated; the kidneys no longer perform the extraordinary work imposed upon

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:	
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Applicants received whenever vacancies occur. The next class will be organized the first of April, 1911. For full information address

Sanitarium,

Battle Creek, Mich.

them, and those obstructing poisons, those vicious elements of disease, must be gotten out of the body. The bad habits of life must be broken off, and right living must be the motto. But this requires study and knowledge. Consequently, every day there are lectures on the art of getting well. A school of health is carried on; indeed, the Sanitarium is frequently denominated, and appropriately so, a health university. By every means the invalid is instructed in the art of preserving his health.

The nervous tone of the patient is deranged, his circulation is poor, his digestion is faulty, or some other trouble is

Making His Life Miserable.

Now there is a work on hand to get these things to rights again, and our friend must take a hand in this. He must not only prepare himself for the baths and other treatments, but must participate in the administering of them and note the effects produced; he will watch his own case, and seek to become familiar with the philosophy of the work that is being done for him.

Then at the table he must keep his wits about him. Not that he should take his food as he would take a big dose of disagreeable medicine, and then watch for the symptoms produced; he should eat his food with a fine relish, and eat to live. Every meal should be a distinct uplift into a better condition of living.

Then, too, he must not forget his social needs. His mind must be pleasantly and profitably employed by suitable diversions,

by reading, and conversation of a salutary character. And to do this he should not seek to act the hermit, or to get into his shell like the turtle and stay there; he seeks pleasant and refined association, and at the Sanitarium we always find it right at hand.

All these considerations the Sanitarium furnishes its patrons unstintingly, and the doctors advise each person just how to adapt himself to the opportunities that are presented. And those of us who have been here a long time know full well that those who get well and make the best and most rapid recovery are without exception those who assume an attitude of cheerful acquiescence in the recommendations of their physicians.

The Daily Program

of the average Sanitarium patient may be set down as follows:

Rise at six o'clock.

Shower bath, or mitten friction.

7:00—Breathing exercise in gymnasium.

7:20—Morning devotional in parlor.

7:40—Breakfast.

9:00—Gymnasium exercise.

10:00 to 12:00—Bathroom work.

1:00—Dinner.

2:00 to 4:00—Exercise, lecture, or class.

5:00 to 6:00—Treatments.

6:00—Supper.

7:00—Gymnasium exercises.

7:45—Lecture or entertainment.

9:00—Retire.

"CASTE AND KARMAR"

Was the title of an interesting and instructive address delivered before a Sanitarium audience by E. G. Smith, M. D., a medical missionary from the Madras Presidency, India. The religions of the Orient are essentially fatalistic, and it is usually very difficult to induce the people who cherish those religions to do anything to better their own conditions. It is easy to show them their great need, but their reply is invariably, "But what can I do?" Caste is a religious restriction and is therefore as firmly adhered to by its victims as by its beneficiaries. The lowly Sudra shrinks from breaking caste even more than does the proud Brahmin. Karmar is a term indicating that a man or woman is getting his or her deserts. Whatever calamity befalls an individual, it is a punishment for some sin, probably committed in a previous existence. Consequently the people are very loth to relieve suffering or distress of any kind lest they shall thus interfere with the decrees of the gods and pervert the course of justice. The wife of a prominent man fell into a flooded river and was swept away. The local paper the next morning, speaking of the incident, lauded the heroism of two men who followed along the bank for a mile speaking words of encouragement to the drowning woman. If she were to get out, she would do so without their assistance; if she were fated to be drowned, they would only incur guilt by helping her out; so the utmost they could do was to speak encouragingly to her in her plight.

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Battle Creek, Michigan.

ARRIVALS

THE list of arrivals at the Battle Creek Sanitarium for the week ending January 15 is as follows: Mrs. F. G. Barton, Mich.; J. Mueller and daughter, Mo.; Mrs. C. T. Shepard and daughter, N. Y.; Mrs. Leavenworth, Mich.; Hon. Gifford Pinchot, Pa.; Mr. and Mrs. Schermerhorn, Pa.; W. F. Childs, Boston; J. H. Sykes, Mich.; Lulu Eck, Ill.; S. C. Weaver, A. Coil and G. Hyde, Ohio; A. B. Alexander, Pittsburg; Wm. M. Splan, Minneapolis; Olive B. Shepard, Ill.; A. French, Mrs. A. French, Mich.; Mrs. C. O. Wurtz, City; Louise E. Tschirch, Burma; R. H. Grunler, Chicago; Mrs. L. H. Chaplan, Detroit; A. Milnes, Mich.; E. Wadsworth, Ia.; G. R. Trenchard, Ill.; L. Comiskey and W. Gear, Chicago; W. H. Sherwood and wife, Wis.; Sam. L. Wantz and wife, W. Va.; Herman Salzberg, Chicago; Albert Lincoln, Mass.; Mrs. J. B. Whitten, N. Y.; Clarence S. Dudley and G. R. Hubble, Detroit; Mrs. G. K. Hening, Ill.; Ernest Kellerttrah and family, Mo.; L. B. Goodkind and wife, Toledo; V. H. Shoolenford and wife, Mo.; Byron O. King, Pittsburg; Mrs. Lucy H. Howard, Pa.; Mrs. Chas. M. Gordon, Ill.; B. G. Watson, Ohio; Mrs. David Inglis and Mrs. Henry Baxter, Detroit; Miss Rinzingier, Indianapolis; Mrs. L. E. Lennox, Mich.; Chas. M. Gordon and Mrs. E. Osmonsen, Ill.; Ralph E. Chapel, Ohio; Geo. N. Morse, Conn.; Mrs. E. N. Worth, Mich.; Mr. and Mrs. T. R. Butcher, City; W. W. Miller, Ia.; E. T. Eggleston and wife, Kans.; Mrs. James Fiddick and Mary B. Fiddick, Ill.; Jas. Ingram, Minn.; N. Goodman, Chicago; Mr. and Mrs. H. D. Johnson, Ind.; Mr. and Mrs. M. P. Colt and son, O.; Mrs. L. M. Yutzky, Mich.; J. L. Allen and wife, Ark.; P. Wunthoft, Pittsburg; F. W. Schiffelin, Tex.; Bessie Butler, Mich.; Mrs. Chas. Boyton, Chicago; Max Lowenthal, New York; J. W. Butler, Kans.; M. M. Lusting, Mich.; Philip A. Swartz, New York City; W. Headland, M. D., and Mrs. Dodge, Idaho; Mrs. Strong and Miss Florence Walker, Mich.; S. Penhoff, Ill.; Mrs. Max Lowenthal, New York City; F. C. Wolf and wife, Ind.; A. C. Johnson, Chicago; J. R. Witzigman, City; Harry C. Chase, Mich.; Mrs. W. D. Lummis and Miss M. C. Howell, Toronto; Grant McTear, Tenn.; S. P. Dunkley, Kalamazoo; Geo. N. Hale, Mich.; Louis A. Geis and Joseph Fries, Pa.; J. B. Littman, Ohio; John C. Rogers and wife, Cincinnati; August Boerner and A. H. Foster, Ohio; May Elizabeth Weber and Mrs. Samuel E. Hiller, Cincinnati; Mrs. R. F. Twines, Mo.; A. L. Boher, Chicago; G. W. Cussena, Ill.

News and Personals

We are glad to have with us again Mr. and Mrs. Max Lowenthal, of New York City, well-known guests of the Sanitarium.

The Sanitarium ice harvest is now in progress. The spacious ice-houses are being filled with 1,600 tons of clear, beautiful ice. About eighty teams are employed in the work. One of our illustrations this week shows the work in progress.

Mrs. E. L. Eggleston left last week for New York City to meet her husband, who is returning from Germany, where he has been pursuing post-graduate study. After a short visit in New York they are expected home.

An apology is due to our readers for the lateness of the last two issues of THE BATTLE CREEK IDEA, which was brought about mainly by the extra work connected with the meeting of the Medical Missionary Conference; but we trust that it will not again occur that we shall have to appear later than the regular day of publication.

Doctor and Mrs. J. F. Morse arrived from Europe on Friday morning. Dr. J. F. Morse successfully passed the very exacting examinations and obtained the degrees of the Royal College of Edinburgh and the Faculty of Physicians and Surgeons of Glasgow. They were gladly welcomed by their many friends in the Sanitarium. It is understood that Doctor and Mrs. Morse will shortly leave for Porto Rico, where they will engage in mission work.

A book that is finding a very ready sale at the book stand is a neat volume written by Mr. Herbert W. Fisher, entitled "Making Life Worth While." This book was recently published and is having a wide sale. The author is the brother of Prof. Irving Fisher. The book is well worth perusing, being written in a bright, interesting and most convincing manner. It is easily the best book on "right living" recently published.

The monthly magazine, *The Medical Missionary*, which has been published at the Sanitarium for the last twenty years, was formally recognized by the late Medical Missionary Conference. An Advisory and Contributing Editorial Board was appointed, consisting of the following members: Robt. H. Nassau, M. D., D. D., Philadelphia; F. D. Shepard, M. D., Turkey; L. R. Scudder, M. D., India; Mrs. Mariam Headland, M. D., Pekin; S. H. Thomas, M. D., Arabia.

Mr. Philip A. Swartz, of New York, organizing secretary of the Student Volunteer Missionary Movement, was a guest at the Sanitarium for twenty-four hours last week. Mr. Swartz attended the meeting of the Christian Endeavor Society, where his identity was not known. The project of organizing a volunteer band among Sanitarium nurses was mentioned, and at the close of the meeting Mr. Swartz created a little surprise by the interest with which he revealed his identity, and seized upon the opportunity for promoting his chosen work. The result was that steps are being taken for the organization of a Sanitarium Volunteer Band.

The Christian Endeavor meeting on Friday evening was led by Miss Anna Smith. The subject was "Abraham, one of the series of Great Lives" which were selected by leaders of the Endeavor movement. The leader spoke of the great faith shown by Abraham, of his remarkable life of dependence upon God, which earned for him the distinction of being called "The friend of God." The subject was beautifully suggestive. Many took part in the testimony and

many rich experiences were related by visiting missionaries. The subject for next Friday night is "Prevailing Prayer," and it is hoped that Doctor Morse will lead the meeting. It is expected that there will be a very large attendance.

Bishop and Mrs. Thoburn left for their home in Meadville, Pa., on Monday morning. Many other of our Conference visitors have left during the past few days, among them being Doctor Tucker, of China; Doctor Scudder, of India; and Doctor Shepard, of Turkey, who one and all expressed hearty appreciation of the Sanitarium and the royal way in which they have been entertained during the Conference and subsequent days. Many expressions are heard on all sides from Sanitarium guests of the enjoyment they have found in meeting these missionary heroes and hearing of the march of progress from lands which they represent.

The Sanitarium passenger agent, Mr. L. C. Coulston, was somewhat surprised recently to see a six-foot gentleman in robust health and form, jump from a Grand Trunk train and, rushing up to him, grasp his hand cordially, with the exclamation, "How is the Sanitarium? How are you all getting along up there? I was here fifteen years ago and haven't eaten a particle of meat since. Good-by." And jumping on the train he was off again. This man had evidently profited by his experience at the Sanitarium, as many thousands of others have done.

Sir Horace Plunkett, the Irish patriot who has been spending a few weeks at the Sanitarium, brought his visit to a close the last of this week. The last evening that he spent at the Sanitarium he addressed the family, choosing as a topic, "An Irishman's Thoughts on Conservation." Choosing a different line of thought from what had been anticipated, he followed the history of conservation in our own country from its first inception, speaking of his own experiences which brought him into intimate counsel with President Roosevelt and others, who became interested in this great topic. A large audience listened with much interest to his remarks, which brought out many facts of interest to those who are watching the progress of conservation in this country. His most interesting address will be published in a future number of THE IDEA.

Byron W. King, A. M., Ph. D., President of King's School of Oratory, Pittsburg, gave a most inspiring and helpful lecture in the gymnasium on Wednesday evening. The title of the lecture was "The Upward Way," and Doctor King especially emphasized the idea that love of work was the only true way of reaching higher levels in the onward march. He illustrated his lecture with many beautiful poems, excellently culled from Riley, Eugene Field, Tennyson, and many others. He said that he would rather have written one poem that would inspire and uplift thousands as these authors had done, than to have amassed a colossal fortune. One of his readings was the twenty-third Psalm, which was most beautifully rendered, bringing to the well-known words new light and meaning, which will never be forgotten by his hearers.

THE BATTLE CREEK IDEA

VOLUME IV
NUMBER EIGHT

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PUBLISHED WEEKLY AT BATTLE CREEK, MICHIGAN

SPECIAL MIDWINTER NUMBER—JANUARY 27, 1911

Raising a Crop of Health

FOOD FOR THOUGHT FOR THE NEW YEAR



A **INVALID** is converted into a healthy man by essentially the same process as that by which a crop of corn is grown. The ground is prepared, the seed is sown, the crop is cultivated, and in due time the harvest comes. It generally requires three or four months to raise a substantial crop of health. Not infrequently wonderful results may be obtained in a much shorter time; sometimes a longer period is required; but, whether longer or shorter, the process is one of seed-sowing and growth, not of luck or magic.

Health is a thing of growth, of culture. It is not found on druggists' shelves. Health is too vital, too energetic and expansive, too strenuous, for any bottle to hold it. Health is not held as a monopoly by any locality. It cannot be cornered. Health cannot be bought, neither can it be obtained by any occult process.

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The chronic invalid must grow out of disease into health. "Whatsoever a man soweth, that shall he also reap." In other words, disease is chiefly the result of wrong habits of life. We sow the seeds of disease and reap crops of sickness, just as the farmer sows grain and reaps a harvest of wheat or corn. Wrong habits of life are the seeds which develop into disease. Right habits of life are the seeds of health.

The Sanitarium patient is early impressed with the fact that his treatment necessarily requires, from the very outset, the exact regulation of all his habits and the establishment of natural conditions of life. The simple life and return to nature are ideals



constantly held up before him. He must work out his own salvation; he must "cease to do evil and learn to do well;" he must cease to sow seeds of disease, and by every means in his power cultivate health.

He is thus made to understand that the successful treatment of his case is as much a matter of careful training as is the preparation of a boat crew or a fine trotting horse for a race.

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Reconstruction is the object at which the Sanitarium physician aims. The man who is chronically sick has something more than an assortment of bad symptoms. His functions are disordered, but back of this there is an abnormal, diseased condition of the tissues. There can be no chronic disease without deteriorative changes in the blood. From diseased blood come diseased tissues and disordered actions, so the body itself must be changed. Blood, nerves, muscles, glands—all must be renewed and rebuilt. The old diseased tissues must be replaced by sound healthy tissues.

By means of baths, massage, exercise, and other physiologic measures, the old tissues are broken down and the diseased residue carried away. By proper diet, carefully selected and adapted to each individual case, especially food which is of the most highly nourishing character and most easily digestible, and by the employment of all rational recuperative means, the building up of the new tissue is encouraged. The result is that the patient not only feels he is a new man, but actually is a new man. He has been given a new lease of life. He has been born again.

—From a Statement of Battle Creek Sanitarium Principles.



The Frank Impressions of a Noted Journalist

*S. S. McClure, Editor of McClure's Magazine, Makes a Pointed Comparison
Between the Battle Creek Sanitarium and the Celebrated
Health Resorts of Continental Europe.*

MR. S. S. McCURE, publisher and editor of *McClure's Magazine*, and one of the leading journalists of America, has been a frequent visitor to the Battle Creek Sanitarium during the past year, and has become an enthusiastic convert to the health principles of the Battle Creek Idea. With his several years' experience among the most celebrated watering-places of Continental Europe, and his trained habits of keen observation, he was well prepared for the comparisons he made recently, in an address at the Sanita-

rium, 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 in the Swiss resort, 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 physician to whom I am alluding is a celebrated authority on diet and autointoxication, 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.

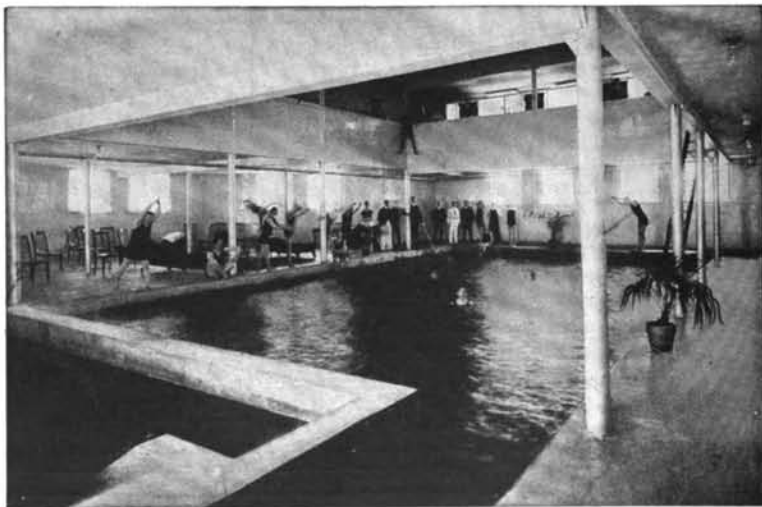
I could just as well spend my time at some of those famous cures as to spend it here,
(Continued on page four)



The Women's Pool

rium, between the Battle Creek institution and the methods employed in Europe. The characteristic outspokenness with which he stated his impressions makes them of exceptional value to the health-seeker. His talk is here given in full:

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, Hamburg, 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



The Men's Pool

Indoor Swimming Pools at the Battle Creek Sanitarium maintaining midsummer sea-water temperature all the year round.



"Florida in Michigan"—A winter scene in the Palm Garden at the Battle Creek Sanitarium, where bunches of bananas ripen on huge stems twenty feet high.

Two Letters to a Friend from a Battle Creek Patient

In Which the Winter Comforts and Attractions of the Sanitarium and the Joys of a Puzzling Epicurean Diet are Described in Terms to Make Your Mouth Water.

DEAR ———

Your long letter was most welcome, though naturally the news that you could not come was disappointing. My first impulse was to urge you to throw up your business cares and attend immediately to the most pressing business of all—that of straightening out your own health. But I have a new proposition that will strike you as more practicable. Why not come out here in the winter—just after Christmas, when your business, I take it, slows down a bit? On the score of your own affairs, I can see no obstacle to your doing so, since you can leave things pretty much to themselves. It would be better, too, as you would then be entirely free from the worry that might otherwise clog the process of health-getting.

On the other hand, if you doubt the virtues of this place in winter, I can scatter your doubts pretty quickly. The climate here is mild and free from fits of temper—temperature, I should say. The air is brisk and snappy, just the kind to invigorate and thrill without discomfort. If you don't care to be out in the open, you can stay inside and forget that it is winter—for they keep up a uniform summer temperature all the time, and every nook and corner, every room, is so well ventilated with warm fresh air that it is quite unnecessary to open a window. Remember the Palm Garden, too, where you can easily be hypnotized into believing that you are in Florida.

Come to think of it, there is not a single good feature about this place in summer that

is not just as good in winter. In fact, it is better; for the principal attractions of the Sanitarium are all indoors, and naturally one appreciates them much more in winter. Indoor life becomes more inviting, and the parlor with its great hearth-fire must be a cozy place. Lectures and entertainments have a closer appeal; there is more impulse for continued exercise; the appetite for food is keener, though I am sure it can never taste any better than now; and the warm baths, at least, are more alluring.

For instance, I had a warm bath to-day, which I always welcome with a glad hand; but I should feel even more warmly toward it if I got it in zero weather. I mean the electric light bath. I like it best of all, and if my physician hesitates when he fills out my prescription, I wedge in a good word for the "electric light." It's really a royal affair; for I am told that the King of England and Emperor William, among other royalties, have installed this bath in their palaces, and take to it often as a relief from the woes of state.

And then there is actually a room here containing several appliances whose sole business is to make sunshine. By means of these devices—merely an arc light in a reflector—you can get sunshine to order, day and night and all the year round. So if you are here in the winter, you can obtain a sunbath very comfortably. It seems incredible, but one of these lights can produce sunburn in a few minutes.

Another summer luxury for the winter

season is the indoor swimming. There are two large indoor swimming pools, in which the water is kept at summer sea-water temperature all the year round. You can have just as much fun here as you would in California or at Palm Beach—I know it, for I hear it repeatedly from people who have "been there."

Every encouragement is given to outdoor sport, for they believe as you and I do, that activity for pleasure is better medicine than prescription exercise. As a matter of fact, sport is part of the prescription—but you forget that it is prescribed when you lose yourself in it. And you can't help losing yourself in it when you're out for a sleigh-ride or skating or tobogganing or keeping step with a merry walking party. I can see you with a broad grin, and roses on your cheeks, and—

But it's so late that I must let you fill out the rest of the picture—and I've told you how to make it all come true.

Yours, etc.

II

DEAR ———

I don't wonder that you failed to understand my account of the dietary in my first letter. I knew as much about it as you did, but I have learned a good deal since then, and now I can make the food matter a little clearer.

The first lesson comes when you sit down to the first meal and take up the menu. It's printed so attractively that it adds zest to your appetite, but how are you going to satisfy it when such unknown quantities as *Protose*, *Sanitas Steak*, *Granose*, *Yogurt*, *Bromose* and other *-oses* confront you? To the newcomer these little words are as puzzling as the Frenchy dishes on a hotel menu. You appeal to your neighbor for help, and you are lucky if he is able to translate them to your satisfaction.

The best way to find out what they are is to eat them, and this practical test, far from

causing regrets, leaves many sweet memories. My palate is tickled whenever I merely think of *Protose* and *Bromose* and all the rest.

To pay any adequate compliment to these Sanitarium foods is beyond me. It takes more powers of description than I have to make you realize how tasty the dishes are—and even then it would be useless. You must come and eat them for yourself. You can't enjoy these fine meals by proxy.

And don't imagine for a moment that the newly made foodstuffs I have mentioned are all you can get to eat. There are nearly sixty items on the bill of fare at every meal, and there is an astonishing variety both at each meal and from day to day. This is all the greater achievement when you bear in mind that meats, fish, tea and coffee, ordinary cheese, and irritating condiments are tabooed. Of the customary foods you will find only those—eggs, vegetables, fruits, etc.—which are unquestionably pure and wholesome. But in addition to these the bill of fare offers a whole legion of grain, nut and fruit dishes which are not only free from the poisons contained in meat and the rest, but are really more palatable and infinitely more easily digested.

The nut products are particularly inviting. "Nuttolene" is a savory, butter-like preparation which takes the place both of meat and of butter. It is served with sauce, as an entree, and is also put up in sandwiches. "Protose" looks like potted meat, and tastes like it; yet it consists of nothing but cereals and nuts. "Bromose" is of similar make-up and is very fattening. It can be had in little caramel squares (one variety containing both nuts and figs); and there is no candy to beat it.

Nuts are used also in making soups, beverages, salads, puddings, and bread. The nut buns, so far as I am concerned, are the most delectable things in the whole range of Sanitarium foods; and I jump with joy when I see it on the bill of fare. Even now, though I have just had a full dinner, my mouth waters as I think of them.

The other breads, too,—the graham puffs and all the rest,—are excellent. So are the toasts, especially the cream and strawberry toasts. It is remarkable how appetizing the ordinary foods are, to say nothing of the extraordinary ones. Cream and milk and the various cereals never before tasted so well, and eggs (the jellied eggs are particularly fine) never agreed with me so nicely.

All the fruits—and there seems to be a never-ending variety—have this same aristocratic quality. One fruit beverage in particular—Apple Juice—would surely take the prize in a competition even if the nectar of the gods were there. It's the sweet variety, unfermented, of course; and we drink it freely at every meal. Grape Juice and Fruit Nectar are also at hand, and they're great. Yogurt is a Bulgarian sour milk preparation, much like kumys; it's very healthful and an effective germ-killer. After the first or second trial almost every one likes it.

If this kind of food is a fad or a hobby, then I am content to be a faddist all my life. As a matter of fact, it is less a hobby than the conventional fare of the average man, for it has infinitely more common sense and scientific reason behind it.



The Sanitarium Dining Room—on the top floor, commanding an inspiring view for many miles around.

Not content with providing such an excellent bill of fare, the Sanitarium has an elaborate dieting system which is applied to the individual patient just as far as he needs it. As soon as the physician knows enough about you, he gives you a diet prescription which indicates what kinds of food are best for you, and the total quantity you should eat at each meal.

There is nothing artificial or unnatural about this dieting. They tell you to eat that which tastes good, which is relished, and then forget all about it. It is enough to say that everybody here not only has enough but enjoys every bit of it; and those who think the food peculiar when they start in, soon become the most fervent enthusiasts. The majority are immensely pleased with the new and tasty dishes from the very beginning. It is a rule here that you must chew your food thoroughly à la Fletcher; for it helps greatly in the enjoyment of the food and in the recovery of health.

So you see that the foods are not only appetizing and free from poisons, but they help directly to get rid of disease and they build up health in its place.

When I think of the Sanitarium as a whole, its most inviting feature is this dietary, and that, if nothing else, will some day pull me back again to this Sanitarium though I be in perfect health.

Yours, etc.

8

Frank Impressions

(Continued from page two)

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 receives 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 believe that the invalid can get here 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.

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.

Pertinent Questions and How They Are Answered

If You Too Have Any Queries Concerning the Advantages of the Sanitarium as a Winter Resort—as the Place to Renew One's Capital of Health and Vigor—Be Sure to Read These Replies

Q. Can a person born or raised in a Southern tropical climate safely winter at Battle Creek?

A. There is no safer place anywhere for spending the winter than at Battle Creek. The cool, dry air of the winter is remarkable for its purity, and is highly invigorating be-

cause of its density and consequently the increased amount of oxygen which at each breath is carried into the lungs and blood. The Sanitarium itself is so spacious and the system of heating and ventilation so perfect that a veritable artificial climate is created in the institution. There are more than seven

acres of floor space enclosed, which is warmed, ventilated and kept at a practically uniform temperature, the extreme of variation being 60° to 72° F. A person living here may enjoy the advantage of pure atmosphere and a greater uniformity of temperature than can be found in any climate on earth.

The possible disadvantages from living indoors are counterbalanced by the large gymnasium, swimming pool, manual and mechanical Swedish movements, are lights, and air baths, which are in constant requisition. The Battle Creek Sanitarium is unquestionably one of the best winter resorts for a person who is susceptible to cold, whether from the tropics or any other region. There are always to be found at the Sanitarium during the winter scores of people from southern latitudes, and the number of such persons is increasing from year to year as the public is gradually becoming acquainted with the splendid advantages here afforded as a winter resort.

The wonderful recreative properties of cold air have, within recent years, come to be greatly appreciated, especially by those medical experts who have made a study of the open-air treatment of tuberculosis and allied affections. It has been a common observation at the Battle Creek Sanitarium that the results obtained from treatment in the winter season are in no way inferior to those observed in the warmer months. Indeed, the progress in many cases is more rapid at this season of the year. Much use is made of cold air as a curative agent during the winter season by means of open-air sleeping, for which special provision is made by the use of fresh-air tubes, etc.; the cold-air bath, fresh-air walks, and winter sports and activities, such as skating, skeeing, sleigh-riding, etc.

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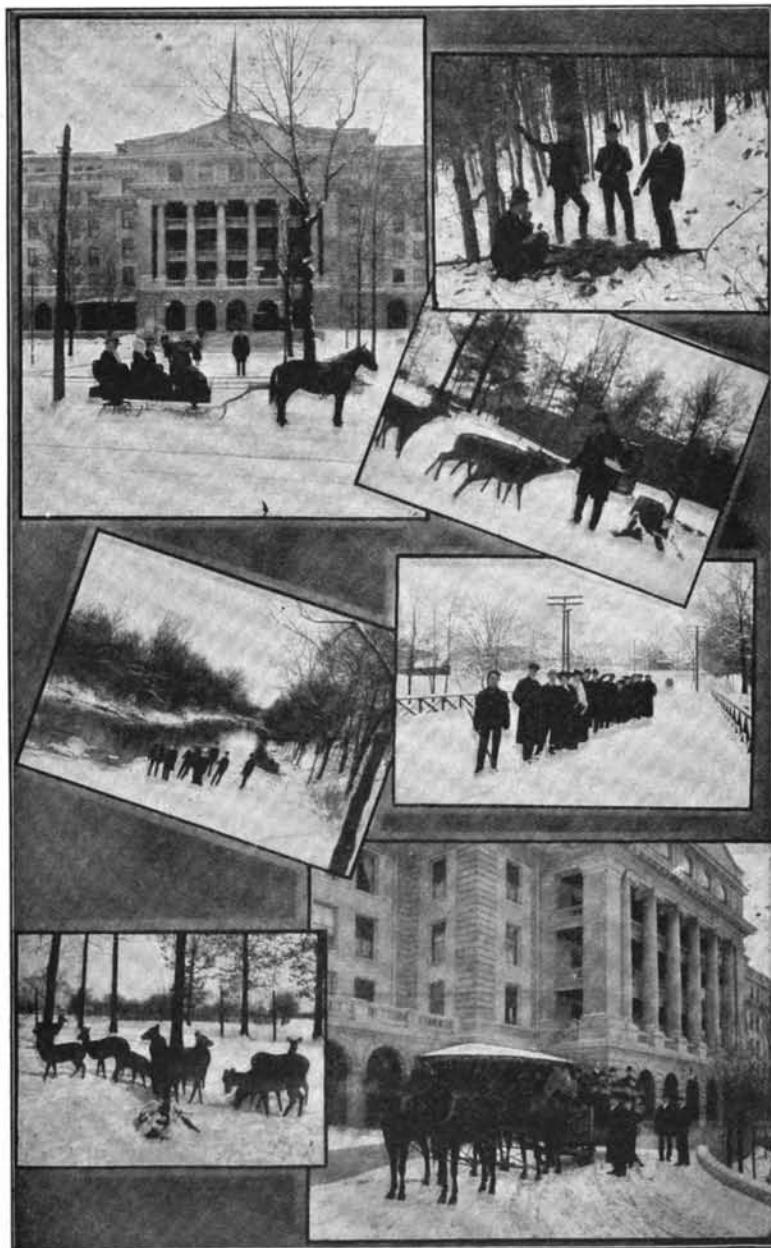
Q. What can the Sanitarium do for a person who feels the need of a general uplift in health and efficiency?

A. Perhaps nowhere else will be found so large a number of ways and means ready at hand to render efficient aid in building up physical stamina, in health reconstruction for the tired business man or woman whose physical powers have been depreciated by a sedentary life and inattention to health culture.

First of all, the general health-seeker is offered a dietary from which everything unwholesome is excluded, which abounds in the most nourishing and most easily digestible food substances served in such a way as to be inviting to the eye and to the palate.

At the outset, the thorough physical examination of the patient makes clear his special deficiencies and his individual needs. Through this examination he knows the strength of every group of muscles as well as the total strength of his body, and is able to compare these with the normal standard of a person of his own height. He also learns just what exercises are needed to build up his weak spots, and is put in charge of a skilled trainer who guides him in the working out of his exercise prescription. The great indoor gymnasium of the Sanitarium with its varied apparatus; the indoor swim-

(Continued on page six)



Winter Sports and Pastimes That Contribute to the Joy of Living at the Battle Creek Sanitarium

The Battle Creek Idea

PUBLISHED WEEKLY AT
BATTLE CREEK, MICHIGAN

SUBSCRIPTION RATES

One Year	-	-	-	\$1.00
Six Months	-	-	-	.50
Three Months	-	-	-	.25

VOL IV JANUARY 27, 1911 No. 8

GOING SOUTH?

MANY invalids make a mistake in running away from cold weather. Frost is the best of all Nature's disinfectants, and the pure air of our Northern winter is for most invalids much to be preferred to the relaxing and germ-laden atmosphere of many Southern climates. The cold weather "toning up" which dwellers in Northern climes experience, is one of the best of vital stimulants, and an advantage to the "dyspeptic," the "bilious," the overworked, the anemic, the neurasthenic, and the generally run down valetudinarian, which he can not afford to forego. Many persons are actually injured by this annual pilgrimage to escape Jack Frost, and the consequent exposure to the depressing, debilitating influences of a warm, damp, "bilious," or malarial climate.

8 8

COLD AIR is Nature's greatest tonic. Warm air is depressing, enervating. Winter is the healthiest season of the year. The only reason why invalids go to warm climates in winter is that they are afraid of cold air and cold weather.

There is some foundation for this apprehension. Sick people have less power than well people to create heat. They are more easily chilled, more readily "take cold," and hence are more liable than others to suffer from maladies which prevail in cold weather—maladies which are often introduced by a cold or a chill.

In winter the germs are frozen up. Decay, animal and vegetable putrefaction, germ growth and dissemination—all cease with the advent of Jack Frost. Winter breezes gather no dust or germs from snow-covered fields.

This pure winter air has priceless value to the invalid. No miasmas, no noxious vapors, no malaria parasites, no mosquitoes, no flies, no germs, no dust, no odors—nothing but pure, vitalizing, invigorating air; crisp, dry, blood-purifying, tissue-renovating oxygen. Such is the air of Michigan in winter.

8 8

THE invalid's dread of cold weather is really a dread of chilling or getting cold—a dangerous thing for sick folks. That, however, is quite another matter. The invalid should breathe cold air, but he must be kept warm. The ideal is—cold air for the lungs, warmth for the rest of the body.

This secures powerful tonic effects, while maintaining a perfect circulation.

How a cold face-bath does refresh one when weary! How a breath of cool air revives one overcome with heat! How cold weather brightens the fire on the hearth and sharpens the appetite! What a splendid bracer is the cold morning bath!

All these facts testify to the tonic-stimulating power of winter air as utilized at Battle Creek,—every breath bears life, vigor, vitality, and health. Each breath is a tonic uplift. You breathe a thousand such healing, invigorating breaths every hour. The cold, pure air which enters the body is spread out over a surface of two thousand square feet of membrane in the ramifying air cells and passages of the lung. Under this membrane, thinner than the most delicate gauze, all the blood of the body passes every two or three minutes to be cleansed by this crisp, pure, germless air.

Eighteen times a minute the lung bath is repeated,—in an hour, sixty times as many, or more than a thousand cold-air baths, which, stimulating and healing, encourage the sick body to right itself.

It is this tonic internal lung and blood bath, combined with all known dietetic and other rational therapeutic aids, that makes Battle Creek an ideal winter resort for the invalid and for those seeking better health.

8 8

RECENTLY, before breakfast, on the coldest morning we had yet had this winter, a lady from one of the larger cities of the country came briskly into the Sanitarium parlor, pleasantly greeting those who were there, and asked, "Is this room too warm? I am not qualified to decide that, for I am so warm myself that I might wish to have it cooler than the rest of you would wish." She was asked why it seemed so warm to her. "O," she replied, "I have just come in from a three-mile walk, and I feel as warm as summer." A shiver went through the company, most of whom had just come from their beds.

The temperature of the body does not vary with the seasons, and it should always be summer inside our jackets. Our bodies are equal to the vicissitudes and emergencies of climate, hot or cold, if we give them a fair chance to meet them. Provide plenty of fresh air at all times, plenty of fresh food, and plenty of good exercise, and we need not fear or cringe in the presence of rigorous old Boreas.

8

Pertinent Questions

(Continued from page five)

ming pools ready for use at all seasons; the outdoor gymnasium with its great swimming pool, running track, sandpile, woodpile, sun-baths, and apparatus of various sorts; lawn tennis; golf links; country drives and walks—all render easy the physical task which at home may have been too irksome to be found endurable.

At Battle Creek there is a general health-seeking, return-to-nature atmosphere which

captures everybody by its spell and lures one on to better things.

The thoroughgoing examination also points out to the health-seeker the weak spots of his vital system. The liver, stomach, bowels, heart, kidneys, every vital organ is brought under careful scrutiny, and thus the slightest tendency to organic disease is discovered. The necessary precautionary measures can then be taken to prevent the development of incurable conditions.

The Battle Creek Sanitarium offers the best possible opportunity for genuine rest, recuperation, and scientific health-building, affording all the advantages of the outdoor life under most favorable conditions, with wise regulation of diet and exercise combined with all the resources of hydrotherapy, electricity and especial therapeutic measures.

The health-seeker whose time is limited ought, under these conditions, to be able to accomplish more than twice as much as in an outing, which at most results in nothing more than temporary relief, while the scientific health-building processes above outlined accomplish vastly more through the eradication of the causes of ill health and inefficiency and the establishment of the individual in sound habits of life. By adhering to these sound habits, he may steadily increase his efficiency and build up a capital of health against the time of vital stress and emergency which is sure to come.

8

Q. I am used to a luxuriant home: can I be furnished with pleasant and congenial accommodations?

A. Yes. The main building is in every respect an up-to-date hostelry as well as a Sanitarium. Fully half the rooms in the main building are supplied with private baths. Suites consisting of two, three or even more communicating rooms may be provided when desired, but when more than two connecting rooms are required, arrangements must be made in advance. The furnishings of rooms are substantial and comfortable. A telephone, with muffled signal, is provided for each room. The structure of the building—solid stone floors and mack-olite partitions—is absolutely fireproof and meets the highest sanitary requirements. The air in the building, as well as about it, is always fresh, sweet and pure. The location of the dining-room at the top eliminates kitchen odors. The use of rugs instead of carpets and the vacuum system of cleaning obviates dust.

8

Q. Is the Sanitarium a money-making institution?

A. No. The Battle Creek Sanitarium is a philanthropic institution dedicated to the public good, and cared for by a board of trustees who hold the property in trust for the general public. It is a self-supporting philanthropy and has little or no endowment outside of its own earnings. Consequently it is necessary to charge those who are able to pay, reasonable prices for the services rendered them. Provision is made, in special buildings which are provided for the purpose, for persons who are in moderate circumstances, as well as for those who are absolutely penniless.

"PERSONAL"

*But You May Read It and
Take Advantage of It*

Battle Creek, Mich.
December 20, 1910

Dear Friend:

What would it mean to you to go through the year practically free from illness, free from spells of headache and colds; turning every working minute into cash, and every spare minute into real recreation or untroubled rest; getting the most out of life; making yourself and others happy; feeling like a king, fit and efficient every minute?

Do you believe it to be possible? Do you know that the experts who are studying human powers, human efficiency, say that it is--that it is simply up to you to learn how--that learning how without living it won't make it, but living without learning how may lead you awry--and that the best, cheapest, and easiest way to learn how is to take what Good Health Magazine gives to you every month?

Do you fully understand what Good Health can give to you if you will but take it--the knowledge how to live so as to get the most out of life, how to live healthfully, competently, joyously--how to keep not only yourself but your home and your community free from trouble and illness--and not by patent devices or doses of drugs but by common-sense living and taking a few hints from twentieth-century science?

Do you realize what a small sum of money it takes--one dollar and fifty cents--to get all this into your home for a period of twelve months? Will you stop to think what a single health suggestion from Good Health may do for you--your health--your work--your home?

Suppose you venture a dollar and fifty cents--and see how much you can get for it. But I didn't mean to say "venture"--that isn't the right word. You needn't take any risk in subscribing to Good Health; we'll assume the risk. Send your dollar and a half; enjoy the magazine for three months, and then, if you don't want it, your money goes back to you immediately on your mere request. My signature here binds us to this agreement. For your part, all you have to do is this--when you write, address me personally, % Good Health, write "Personal" in the corner, and do it quickly, for this will apply only on a limited number of subscriptions. A word to the wise--from

Your well-wisher,

Wilfred B. Keagy

K-A

P. S.--Wouldn't you like to help others as well as yourself to a good thing--and earn an income for yourself at the same time? We can make it a very easy matter for you--we know how. If you are really anxious to help men and women to better and sounder health, then we will give you the chance. Write to us today--before someone else in your neighborhood sees this--and find out what a good thing we can put in your way.

W.B.K.



IN THE PALM GARDEN



VIEW OF THE

The Three R's for H

Where else will you find them?

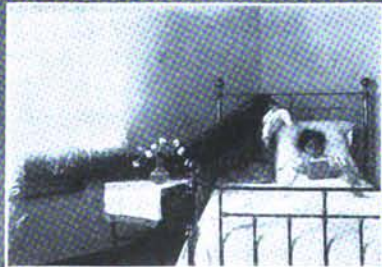
REST—real rest, not simply rest in bed or absolute quiet, but the rest of perfect comfort and 20th century appointments and service—the rest of agreeable conversation with charming friends—of pleasant sauntering in lobby, foyers, porches, palm garden and lawns—of communion with Nature in her best moods—and when needed, the rest of massage rubs and soothing baths.

Q *The Best Time of the Year to get these Three R's at the Sanitarium is the Winter Season—Indoors, Florida; outdoors, the bracing Michigan climate.*

RECUPERATION—real recuperation, the feeling of buoyancy by drug stimulation—(through diagnosis), removing them, and massage, vibration and electricity—and finally, insuring to live right for the rest of his life.



BREATHING EXERCISES



THE FRESH AIR TUBE



THE WALKING CLUB





MAIN BUILDING



IN THE DINING ROOM

Health-Seekers

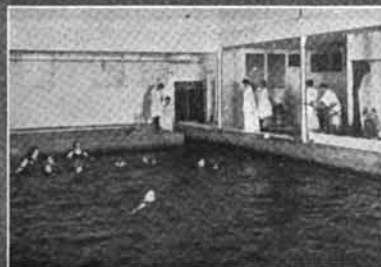
the Battle Creek Sanitarium?

REST
RECREATION
RECUPERATION

RECREATION—real recreation, not simply fun and sport and games, entertainment and diversion of every kind, but re-creation of body and mind—actually making a new man or woman out of you by ridding you of your poisons and worn-out tissues (by gymnastic exercise, swimming, sun baths and all the rest), and building you up with new pulsating blood created from wholesome, delectable food.

bolstering you up and giving you a temporary complete cure by seeking out the causes of disease; Nature to complete recovery by baths, exercise, and the patient will stay cured by educating him

Q *Are You Planning to go South this Winter? Send the Coupon below for Souvenir Portfolio of 60 views.—Possibly you will change your mind!*



INDOOR SWIMMING POOL



MANUAL SWEDISH ROOM

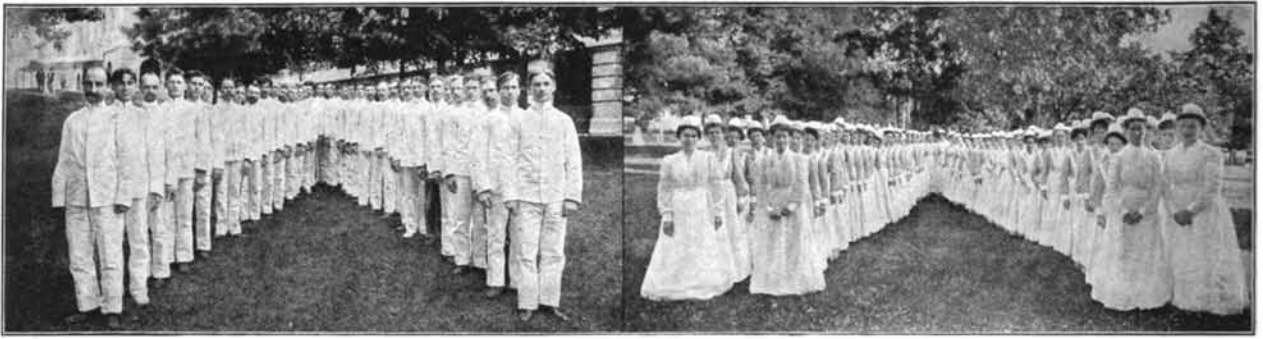
• COUPON •

This entitles you to a Souvenir Portfolio of 60 views if signed below and sent to Battle Creek Sanitarium, Box 153, Battle Creek, Michigan.

Name.....

Address.....

• FOR MORE VIEWS, SEND THIS •



Two Groups of Sanitarium Nurses — A Corps of Expert and Genial Health Trainers

How Sanitarium Patients Are Restored to Health

*No Secrets — No Miracles — Simply a Thorough Process of Health Training
and the Skilful Application of Every Healing Method Known
to Twentieth Century Medical Science*

THE success of the Battle Creek Sanitarium system of treatments depends not upon any secret or specific method, but upon the happy and complete combination of all recognized physiologic measures, bringing to bear upon each individual case, at one and the same time, all appropriate curative influences. At no other place has this been undertaken on so large a scale or so fully accomplished as at Battle Creek.

There is no routine of baths, no rude shocks, no "course" of treatment. The method comprises more than a thousand measures and combinations which are skilfully adapted to individual cases after the exhaustive preliminary examination, and administered by trained attendants especially educated for this work. The whole system is simply a process of health training, which may be described briefly under the following heads:

Nerve Training

Weak and unsteady nerves and nerve centers are, by proper feeding and graduated application of thermic, electrical and other proper stimuli, enabled to reaccumulate the store of energy which has been exhausted, thus reacquiring tone and balance and fitness for the duties demanded of brain and nerves. The condition of each patient's nervous system is tested, and the progress is noted from week to week.

Muscle Training

Weak and feeble muscles which have degenerated under the influence of sedentary life or a burden of worry and care, by carefully graduated exercises and movements under skilled trainers, become plump, tense, and energetic, making activity a joy, and creating appetite, good digestion, good sleep and that sense of renewed youth which means that the march of old age has been checked and disease balked of its prey.

Heart Training

A very essential part of the program is the training of the heart, the most important muscle in the body; always weak in chronic invalids, in special cases dangerously feeble. Even in general dropsy from heart disease, the tired, feeble heart pump may often be so strengthened by special training as to become able to resume and do its work for many years.

Lung Training

That wonderful muscle, the diaphragm, which works incessantly from birth to death, asleep or awake, is not only an air-pump but a blood-pump, a lymph-pump, a bile-pump, even a stomach-pump, for it assists in removing water and digested food from the stomach. This muscle is weak in sedentary men and all invalid women. The result is air starvation, vitiated blood, feeble nutri-

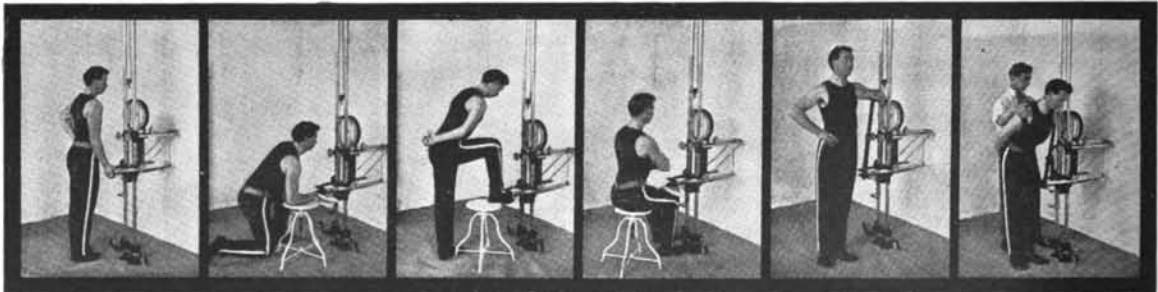
tion, indigestion, constipation. By special chest gymnastics and "movements" in conjunction with other treatment, the diaphragm is strengthened and the great vital pump resumes its normal work, to the immediate betterment of the patient.

Stomach Training

Pawlow, the St. Petersburg savant, has shown that the stomach may be specially trained to digest special articles of food. This sort of training is generally neglected. Here it is a specialty. Stomachs which have become unable to make sufficient gastric juice must be so trained that they will make more. Stomachs which secrete too much acid must be trained to more moderate activity. Slow stomachs may be quickened just as certainly as weak muscles may be strengthened.

By the same methods the bowels, the liver, and every other vital organ may be trained out of perverse, morbid ways to normal, healthful activity.

The Battle Creek Sanitarium System covers the whole ground of curative medicine. It is a scientific healing instrument which affords the physician trained in its methods an opportunity to play the whole gamut of health-producing agencies. 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, phototherapy, mechanotherapy, rational dietetics, the out-of-door method, and various other physiologic agencies, in addition to the methods of ordinary hospital practice. It is only by this concentrated fire from a well-trained therapeutic battery that these Gibraltars of disease commonly called incurable maladies can be made to capitulate.



Testing the Muscles of the Hand, Foot and Trunk in the Strength Test, Given to Every Sanitarium Patient at the Outset and Periodically Thereafter



Sanitarium Patients Enjoying the Electric Light Cabinet Bath—"The Bath of Royalty"

Sanitarium Life Offers Many Diverse Pleasures

The Regular Program of Health-Winning Treatments, Meals, and Rest is Interspersed Most Delightfully with Lectures and Entertainments, Sport and Frolic, and Varied Pastimes according to the Season

LIFE at the Sanitarium is a steady stream of fascinating treatments, epicurean meals, out-of-door excursions and recreation, lectures and entertainments in astonishing variety, meetings with distinguished guests, and merry chattings with other patients on subjects anything but gloomy. Every patient is kept so strenuously busy in the race for health-winning, and the diversions on the way are so fascinating, that the days pass all too quickly.

No two patients have exactly the same program, each case having its own peculiarities and indications for treatment. For the average patient, however, the usual day's program is practically as follows:

A Typical Day

- 6:00 A. M.—Morning bath, cold spray or plunge.
- 6:30—Open-air exercise, country walk, etc.
- 7:00—Chest gymnastics in open air.
- 7:20—Morning prayers in parlor.
- 7:40-8:40—Breakfast.
- 8:30—Rest or recreation in the open air.
- 9:00—Swedish gymnastics.
- 9:30—Mechanical Swedish Movements, mechanical massage, etc.
- 10:00—Office consultation or treatment.

- 10:30—Bath treatment.
- 11:30—Exercise with apparatus in gymnasium.
- 12:00—Outdoor gymnasium, swimming, sun-bath, etc., in summer; sleighride, skating, skeeing, etc., in winter.
- 1:00-2:30—Dinner.
- 2:00—Rest or recreation in the open air.
- 2:30—Walking Club outing, ride, boating, etc.
- 3:00—Chest gymnastics.
- 3:30—School of Health, lecture or demonstration.
- 4:30—Bath treatment.
- 5:00—Massage, Manual Swedish Movements, etc.
- 5:30—Phototherapy or electrical treatment.
- 6:00-6:30—Luncheon.
- 7:00—Gymnasium drill.
- 7:45—Lecture or entertainment.
- 9:00—Retiring.

Such a program is obviously too full to be worked out completely every single day; but the regular patient takes advantage of nearly all these opportunities as the days go by, by alternating between one kind of treatment and another, between the afternoon outing and the School of Health lecture, etc. In addition to these regular features, there are

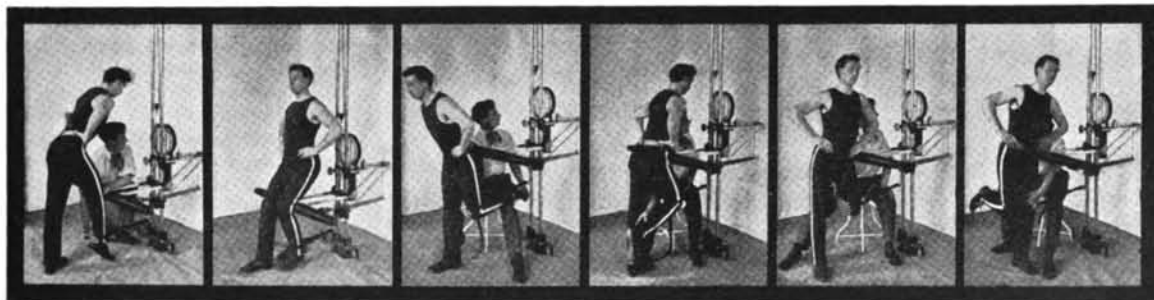
any number of unexpected additions to the day's program, in the way of both entertainment and serious interests, which effectually banish any feeling of routine and fill up the cup of Sanitarium enjoyment to the full.

Entertainment and Diverston

There is hardly a day or evening when there is not an entertainment of some kind—a musicale or recital, stereopticon or moving pictures, a pleasant travel-talk, a song or prayer service, a Bible reading, a lecture or address by notable men and women of all creeds, denominations and walks of life. Once a week a Question Box is held by one of the chief physicians, who answers in a vivacious and interesting way any questions that may be presented by the patients on topics relating to health and the cure of disease. On one or two other evenings of the week, one of the physicians, often the superintendent, gives stereopticon lectures explaining the Sanitarium system of treatment or some vital topic of hygienic living. Swimming tournaments, exhibitions, demonstrations in nursing, cookery, etc., occur at frequent intervals.

Lectures by Distinguished Guests

Hardly a week passes without one or more lectures from some noted author, preacher, traveler, government official, or other celebrated person who has stopped at the Sanitarium as a visitor or patient. The number of such distinguished guests who come to the Sanitarium within a single season, attracted often by its peculiar advantages as a rest resort for brain workers, is always large; and the opportunity to hear them and to meet them is a rare and much-appreciated pleasure.



The Strength Test Continued—Determining the Strength of Leg and Thigh Muscles—There are Twenty-Six Tests in All, Covering Every Important Muscle in the Body.

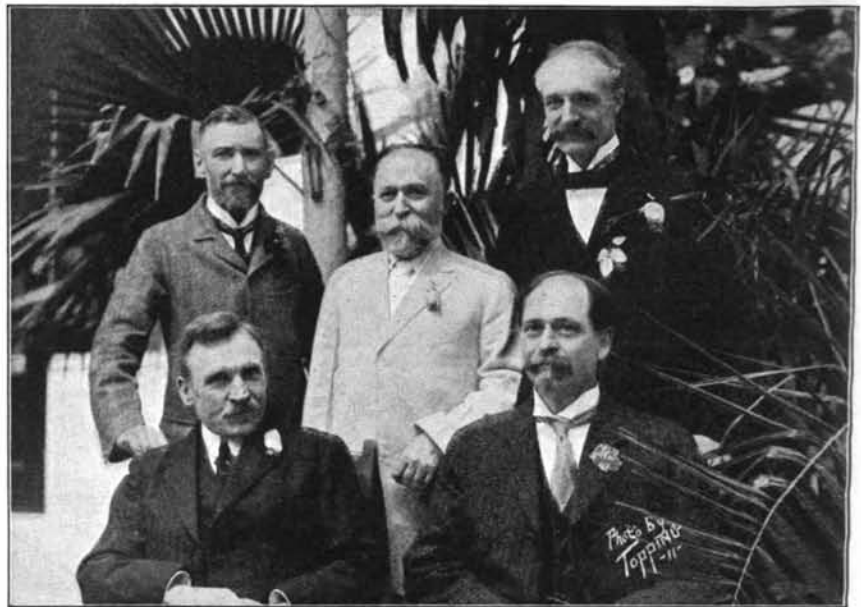
Guests often comment with delight on the democratic spirit which pervades the institution; not only is it easy to meet and converse with distinguished visitors, but congenial friendships are quickly formed among patients and guests. The patients come from every region of the United States, and often from foreign lands, and the exchange of news and experiences is mutually illuminating.

The employees of the institution are uniformly of a superior type of men and women, and contact with them is a constant source of pleasure. The Sanitarium community is indeed a great, amiable family, rich in fraternal feeling, sympathy and human interest.

The social life at the Sanitarium is quite unconventional. Fashionable display and dissipation are conspicuously absent. Simplicity of dress, in obedience primarily to the dictates of health, is the rule; and every patient is made to feel at home in the common enjoyment of everything that the Sanitarium has to offer. Musicales, concerts, readings, etc., are given frequently by noted talent. The Sanitarium has its own orchestra, which renders music during the dinner hour in summer, and gives frequent concerts—in summer on the front terrace, and during the winter in the gymnasium or the main parlor.

On the Sabbath, all regular treatments and business activities are suspended, and the crowded daily program gives way to a period of rest. Patients take advantage of this respite to spend the day at nearby resorts in recreation, picnicking, etc. The facilities at the Sanitarium itself for rest and retirement are equally abundant. At any time, if a patient desires to be alone, to rest and muse, he may wander along the porticos or corridors until he finds himself in some secluded nook of lawns or palm garden, porch balconies, foyers, or parlors. He can be quiet if he likes and when he likes. In his own room he is shut away from all contact with the world by thick, noise-proof walls.

With this infinite variety of experience and benefit, a stay at the Sanitarium is an education and an inspiration. It lifts the chronic invalid out of his ruts, makes him forget himself, fills him with new hopes, and gets him started in wholesome, life-prolonging habits.



A Notable Group at the Sanitarium

Standing—SIR HORACE PLUNKETT; DR. J. H. KELLOGG; HON. GIFFORD PINCHOT
Sitting—MR. S. S. MCCLURE; PROF. IRVING FISHER

The Sanitarium A Mecca for Many Notable Guests

*A Few Jottings Concerning A Number of Eminent Men Who Have Recently
Stopped at the Sanitarium to Regain Strength and
Vitality for Arduous Tasks*

THE opening days of the new year at the Sanitarium were made memorable by the presence of a distinguished group of men of international fame: HON. GIFFORD PINCHOT, champion of the conservation of our natural resources; SIR HORACE PLUNKETT, of Dublin, leader in the country life movement in Great Britain; PROF. IRVING FISHER of Yale, president of the Committee of One Hundred on National Health; and MR. S. S. Mc-

CLURE, publisher and editor of *McClure's Magazine*, who has lent powerful aid to the reformers. Though not arriving in one party, all four guests are intimately acquainted and their association at the Sanitarium has drawn special attention both to themselves and to the great public reforms they are urging. Their visits at the Sanitarium were purely for purposes of rest and recreation. They remained for varying periods of one to three weeks, and during their stay gave lectures at the Sanitarium on their favorite topics. A reception and a banquet were held in their honor.

8

PROF. IRVING FISHER, head of the department of Political Economy at Yale, spent the Christmas vacation at the Sanitarium with Mrs. Fisher and family. On previous visits to the Sanitarium, Prof. Fisher became much interested in the Sanitarium theories of diet, and conducted the tests which revealed the superior endurance of Sanitarium non-flesh-eating employees as compared with the flesh-eating athletes of Yale. Since then Prof. Fisher has been a powerful advocate of the low-protein dietary which is a fundamental principle of the Sanitarium.

8

Gov. W. R. STUBBS, the famous reform governor of Kansas, recently made a visit to the Sanitarium, leaving one of his daughters

MEDICAL MISSIONARIES FROM THE FOUR CORNERS OF THE GLOBE GATHER FOR THIRD CONFERENCE AT THE SANITARIUM

MEDICAL missionaries of all denominations, representing nearly every important missionary field in both hemispheres, met at the Sanitarium during the first week of the new year for the Third Annual Medical Missionary Conference. The attendance was larger than at any previous conference, consisting of approximately one hundred and fifty missionaries, fully two-thirds of whom were doctors. The meetings were held in the Sanitarium chapel. The session opened with a dinner at noon on Thursday, January 5. Chas. C. Creagan, D. D., President of Fargo College, N. Dak., was the presiding officer. Dr. C. E. Stewart, of the Sanitarium staff,

Dr. Robert H. Nassau, of Philadelphia, and Bishop J. M. Thoburn were the vice-presidents and assisted in conducting the conference. Forty-two addresses were given, and all left a very deep impression.

Frequent expressions of interest and hearty appreciation of the Conference have been heard from the Sanitarium guests, and it is evident that as a result of this unique gathering from the four corners of the earth, a much more intense interest will be taken in foreign missions. Much has been learned of the different lands, and the power of missions in moulding the destinies of these nations for the better.

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. During his visit here, Gov. Stubbs delivered an address which revealed clearly his aggressive stand against corruption and inefficiency in politics.

A PERSONAL friend and neighbor of Gov. Stubbs, CONGRESSMAN A. C. MITCHELL, of Kansas, recently elected on a strong insurgent platform after a hard-fought contest, arrived soon after Gov. Stubbs for rest and treatment. Apropos, the Battle Creek *Enquirer* remarked editorially: "Mr. Mitchell comes to Battle Creek to fortify for his mission at Washington, while Governor Stubbs, already fortified, goes whanging and head-busting among the foes of common rights at home and abroad. The forefront of progress travels on stomachs relined in Battle Creek, U. S. A. The dawn of a Better Day is jerked over the horizon by strength regained and redoubled in Battle Creek."

U. S. SENATOR ROBERT L. OWEN, of Oklahoma, and his brother, MAJOR W. O. OWEN, U. S. A. (retired), stand out prominently in the list of recent notable guests at the Sanitarium. During their stay of several weeks they became deeply interested in the Sanitarium ideas and methods and expressed great admiration for its work. Senator Owen is the author of the celebrated Owen bill for a national department of health, now before Congress, and is also widely known as an active worker for better government. During his stay here the Senator addressed large Sanitarium audiences on both topics.

MR. S. S. MCCLURE, of *McClure's Magazine*, the most influential magazine editor and publisher in the United States, has made several visits recently to the Sanitarium, on some occasions bringing with him Mrs. McClure and other members of his family. He has become a devoted admirer of the Sanitarium principles and curative resources, and refers to them often in the most appreciative terms, as indicated by the address printed on another page of this issue. He attributes the youthful buoyancy and vigor he is now enjoying to his adoption of Battle Creek ideas of diet and treatment.

Another recent guest whom the Sanitarium was glad to honor was DR. FRANCIS E. CLARK, founder and president of the worldwide Christian Endeavor movement. It was Doctor Clark's first visit to the Sanitarium, and he expressed himself as greatly delighted with all he saw and experienced of the methods and treatments. During his visit the Sanitarium guests had the privilege of hearing him several times.

MR. HORACE FLETCHER, the apostle of thorough mastication, is an old friend of the Sanitarium to whom the workers in this health institution owe much for persistent support of its principles. He has paid another welcome visit lately, in company with Senator Owen, and yielded again with his

usual geniality to the call for an address. Mr. Fletcher spoke not only on thorough mastication but on the conservation of the child, a movement which is once more enlisting his energies.

BISHOP SAMUEL FALLOWS, of Chicago, recently stopped at the Sanitarium while on a lecture tour, and was so impressed with the institution that he declared his intention to return soon for an extended visit.

CONGRESSMAN CHARLES E. TOWNSEND, of Michigan, recently elected to the United States Senate, was a guest at the Sanitarium for a few days recently, taking necessary treatment and recuperation after a vigorous political campaign.

THE celebrated traveler, MR. A. R. DUGMORE, of England, who hunted in East Africa in the territory covered by Roosevelt, but armed with a camera instead of a rifle, gave a stereopticon lecture in the Sanitarium gymnasium on the evening of January 10.

ARRIVALS

THE roll of newcomers—guests and patients—at the Battle Creek Sanitarium within the past few weeks is here classified according to their home States and leading cities. Thirty-five States of the Union are represented, and six foreign countries:

AFRICA—Rev. Joseph Clark.

ALABAMA—Mrs. Wm. A. Byrd.

ALASKA—R. Tegler.

ARKANSAS—Mrs. E. E. Horner, Mrs. B. B. Bethell.

CALIFORNIA—Mr. and Mrs. Hubert Heron.

Los Angeles—Mr. and Mrs. J. E. Cutler.

San Francisco—C. H. Pitsen, Geo. S. John.

CANADA—Mrs. H. J. Sundahl.

Saskatchewan—Wm. F. Chaplin.

CHINA—Mrs. A. H. Mateer, Dr. and Mrs. H. J. Whitney, Alice Peters.

COLORADO—W. B. Morgan.

CONNECTICUT—Prof. and Mrs. Irving Fisher, and Miss Fisher.

DISTRICT OF COLUMBIA—Gifford Pinchot.

GEORGIA—Mr. and Mrs. J. N. Pideock.

ILLINOIS—Mr. and Mrs. G. C. Dellavon, Geo.

M. Fulton, Mr. and Mrs. B. F. Dewey, Mrs.

Thos. M. Logan, Harry Messer, Rev. O. V.

Vandersmith, Nettie E. Vandersmith, Mrs.

Alexander Pate, S. H. Briggs, T. M. Gil-

fillan, W. H. Taber, L. H. Bissell, Miss

Catherine Hubly, J. W. Walton, Sr., Miss

Mary Pettit.

Chicago—J. P. Knapp, Mr. and Mrs. B.

Wolf, Mrs. A. A. Aiman, Henry E. Os-

trom, W. A. Field, Chas. E. Bates, Mrs.

Fred Bullen, Mrs. H. M. Sherwood, Sara

Norton, Jessie Rumbaugh, J. Henry

Krauss, J. H. Clarkson, Mrs. Marke

French, Mrs. J. Frank, Dr. R. H. Brown,

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A. W. Greenwalt, Mrs. Mary Neff, J. E.

Schultz, Mrs. Chas. Martin, Mrs. J. L.

VIEW IN FIFTY-ACRE PARK PLANNED IN CLOSE PROXIMITY TO THE SANITARIUM



A fifty-acre tract of land in close proximity to the Sanitarium will be converted into a beautiful natural park and recreation ground in the near future if the plans of the Community Club, a civic organization of Battle Creek, are carried out. The Club has already secured nearly the whole of this territory by gift and private subscription. As soon as the balance is secured and additional funds raised for laying out the grounds, the

northern portion, which includes a beautiful oak grove overlooking a series of lakes, will be devoted to the natural park, and the southern portion will be elaborately equipped as a playground and athletic field, with swimming and wading pools, ball courts, and perhaps a Field House. All of this property, with improvements when completed, will be turned over to the public for free use and enjoyment.

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—that new Home Model, produced by the original manufacturers, enables anyone of moderate means to equip his own bathroom with this "bath de luxe"—and thus bulwark the home against disease?

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This sea-weed is put up under the trade name of *Colax*, and as a remedy for chronic constipation it simply has no equal. It is in the form of a biscuit or cracker and can be eaten like bread. It is not a food, and in no sense a drug.

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Fourth, A Monthly Health Adviser for an Entire Year.

Good Health Magazine, edited by Dr. Kellogg and Horace Fletcher—a magazine published only for those who appreciate health and love it, who want to know how to regain health when they have lost it, how to hold on to it when they have it. If you count yourself among these lovers of health, then you would not miss *Good Health* for ten times its subscription price. In addition to special features fully illustrated, there are regular departments dealing with healthful cookery, child training, etc., in charge of Mrs. E. E. Kellogg and other widely known authorities.

Fifth, Health Counsel of Your Own Asking.

If there is anything you cannot find out quickly and in full detail from these books or the magazine—if you have any personal health problems that you want solved—write to the Question Box, *Good Health*,—a department personally edited by Dr. Kellogg—and your question will be answered completely and to the point. Thousands of questions have already been answered in this department.

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THE BATTLE CREEK IDEA

Vol. IV No. 9

BATTLE CREEK, MICH., FEBRUARY 3, 1911

Price 2 Cents

AN IRISHMAN'S THOUGHTS ON CONSERVATION

Address Delivered in the Sanitarium Parlor by Sir Horace Plunkett

DR. J. H. KELLOGG, introducing the speaker, said:

It is not very often that we have a member of the English Parliament as a guest, but it is my privilege to introduce one to you

Electricity in Therapeutics

How the Mysterious Force is Employed at the Battle Creek Sanitarium in Treating Disease

AMONG all the forces of nature none has yielded itself so fully to the service and control of mankind as has electricity. Its utilities have far exceeded those of steam, which

Good Health a Treasure

Dr. J. H. Kellogg, Superintendent of the Sanitarium, in a Parlor Talk Tells His Patients Some Pointed Truths

I MET a lady a day or two ago who said, "Doctor, how long do I have to stay here?" "Well, now," I said, "you don't have to stay here at all; it is purely a voluntary matter."



CONFERENCE OF MISSIONARIES AT THE SANITARIUM IN JANUARY

this evening. I am sure that everybody present here, at least anybody who has gray hairs, has heard of Ireland's grievances; and if you have, you must have heard of the man who has done so much during the last twenty-five years in suppressing those grievances by removing the causes of them. The English government has been struggling with the Irish question for a whole century, and has not settled it yet, but they seem in a fair

(Continued on page three)

for several decades before the development of electrical power was regarded as man's most useful servant. What remains to be discovered of its versatile power no one would dare predict.

Electricity has already

Passed into the Realm of Medicine

and is now more than ever called upon to minister to those who are weakened through

(Continued on page three)

You are here for your own benefit, not for mine, and I suppose you will probably stay as long as you find it profitable; and certainly we will do our best to make it profitable for you in your effort to get well." "Well, of course," she said, "but how long will I have to stay to get well?" I said to her, "That depends upon what you mean by being well, and how well you want to be."

I said, "Suppose you have a gold mine and a friend of yours should say, 'How long will

you have to work this mine to get rich? Your answer to that question would depend upon how much it would take to satisfy you. And probably nothing short of all there was in it would do that."

What I would like to see among sick people is an ambition to

Get All the Health There is for Them—

to get all the gold there is in the mine. Why be content with a modicum when a great store of health is there for you? Why be satisfied with just as little as you can get along with? If a man is after money, he wants to get all that is coming to him. Go to the bank and call for your balance. "How much do you want?" You say, "Well, I want all that is due me." Now, my friends, I wish you would regard this matter from that standpoint.

Suppose you go after health with that kind of spirit. "I want all the health that is coming to me. I don't want to be content with just a little." Say, "Doctor, how long do you think I can stay profitably?" Now, the only answer I ever feel I can honestly make to any one who asks me that question is this: "Now, we are going to do our very best to help you get well, and to show you how to help yourself to get well. We are going to cultivate health, and we are going to teach you how to cultivate health. We want you to stay here until you have all the health you can get, until you have reached the point where you feel that you have a splendid capital of accumulated health; when you go away from here, you are likely to go down hill again unless you are well established both theoretically and practically in the things you have learned and gained here.

To get just well enough so that you know what health is, and learn how you can be well if you choose, and then not to choose to do it,

Is Like Finding a Gold Mine

and going right away and leaving it, turning your back upon it. So many people do that, so many people come here and learn the way to health, how to have joyous health, how to have splendid efficiency, learn how to climb up to greater heights of health, day after day, month after month, but never do it.

Why, a man comes here who is almost in the grave, and in a few weeks he feels like another man; and he wants to go right back home and spend all that health he has got, invest it all in his bank, or in his business, or in some other way, and then expect to come back here and get some more. I know of one man who spent seven years in just that way. He would come here, get on his feet a little; when he went home he would go back to his old beefsteaks and cigars, and other harmful things, then would rush back here a little while, then back home—the same old story over again every time. I felt he was a disgrace to us. It looked as though we were not capable of curing him, and we could not cure him under those circumstances.

Health is so Valuable

it is worth while to cultivate it, to accumulate it, and to get all you can of it, to hoard it up. Lots of people are misers of health, but how many people can you find who are

misers of health, who are saving of the thing of the greatest value? Nothing except character and reputation compares in value with health. There is no question about that, my friends. Nothing compares to it, of the material things that we value, nothing is so valuable as health.

It costs something to regain wealth when you have once lost it. When one loses his property he often has a long, hard struggle to get it again. It is so with lost health, and how many people seem to throw it away again and treat it as though it were a mere trifle. If you have just found a mine, and the gold is coming out, day after day, if you feel that you are really getting well here—then to turn away would be just exactly like abandoning the richest gold mine ever found.

If you have found that you are getting better, stay right here, and work at it until you have obtained all the good there is in it for you, for when you get home you will be expending energy and gradually working down again.

The average man or woman who comes here is broken down, and never can be absolutely well. He can only have cultivated health; he can only have the sort of health that comes from careful obedience to the laws of health. Such a person is like the man who has spent the most of his fortune and has only a little entailed property left, and he can simply expend the income as it comes along. He can not get any deeper down into the capital, for that is largely gone, except the entailed capital, which he can not spend; that is all that is left.

Then you go to the doctor, and you say,

"Doctor, Give Me Something.

I can not work; I can not keep my brain going; give me some tonic, give me something to whip up my brain, to stimulate my nerves." And you are stimulated with tea and coffee, and with tonics of various sorts—strychnia, quinin, and all sorts of things, and arsenic, perhaps; and when you have squeezed your lemon until you can not get another drop out of it, then you come here to the Sanitarium. You expect to be rejuvenated, but it is too late. You can not be rejuvenated; you can not get all that great capital back that you have expended. It has been thrown away—ignorantly, perhaps, or you would not have done it; but now the only way you can ever enjoy any degree of comfort or efficiency the balance of your life, is by living right close to the line. I must tell you that. It won't do to let any of you get away with the false impression that you can go home and back to the old ways again. You never can do it.

A lady I met the other day said, "Why is it I can not deviate the least little bit but what I get headache and depression, and a coated tongue?" It is because she had lost the power of disinfection. The surplus energy she used to have to take care of emergencies, the great power she had at one time to eliminate poisons, is all gone, and now she is just reduced down to physical penury, so to speak; she has only just a little capacity left for destroying and eliminating poisons. We have the liver and the kidneys to destroy poisons and take them out of the body, but when the liver and kidneys are

worn out, they can do but little work, and when a little surplus of poisons is brought into the body, the bad effects are noticed right away.

I Met an Old Toper

some ten or twelve years ago in Chicago, and as I was endeavoring to get him to stop his drink, he said, "Doctor, here is a question I would like to put to you professionally. I have been drinking whiskey ever since I was a boy, and I have been accustomed to taking large quantities of it, but nobody ever saw me stagger; nobody ever saw me drunk. But now there seems to be something strange about it; you know I was drunk yesterday, but I tell you on my honor, I didn't take but just one small drink, and it went straight to my head; and why is it? I used to drink half a pint of whiskey and it didn't make me drunk; but now if I take just one little drink I am dead drunk, and don't know a thing that is going on, right away. Now, why is it?"

That is the same kind of case as the one we are speaking about. Autointoxication and whiskey intoxication are alike in a great many particulars. The trouble was that his liver and kidneys and alcohol-congested glands, and indeed all the organs of his body, had been exhausted. These self-sacrificing hepatic cells that used to seize the alcohol so it could not get to the brain, and hold it until it could be destroyed by the oxidizing powers of the body, had been dried up so there was almost nothing left of the liver; so the poor fellow was defenseless against the alcohol.

Exactly the Same Thing is True

of the person who has been suffering from autointoxication for a great many years; his power to deal with those poisons is lost and one small digression will produce more evil effects directly than a tremendous digression did before. Just a little bit of beefsteak, just a little fish, just a little taste of frog's legs, or a little bit of fried chicken, or a deviled crab, or a bedeviled lobster, or some other thing of that sort—he thinks it is not going to do him any harm, yet he suffers so badly afterward that he thinks the Sanitarium has not done anything for him at all, because he expected the Sanitarium was going to put him on his feet, to restore that great, splendid liver to him that he has squandered, and that splendid stomach he has wrecked, and those splendid antitoxic glands which perform these wonderful offices for us and protect us against these poisons—going to restore them all to their original vigor; but he finds it is not so.

No chronic invalid ever can be really well. The man who has been a chronic dyspeptic for forty years can not be restored to his original health. It would be necessary to create a new man to do that.

It is Impossible to Do It.

The man whose liver has been spoiled by years and years of autointoxication, is hopelessly injured. The man who has had a coated tongue for fifteen or twenty years is so damaged that nothing can ever repair the injury. The only thing any chronic invalid can do is to make the best of what is left. The best part of his constitution is gone. The 150 years he ought to live has been re-

duced to a fraction of that period. There is a tremendous waste and a tremendous loss that never can possibly be retrieved.

So, my friends, the important thing for every one of you when you go back home is to take care of what you have left. If by so much toil, so much effort and expense you have got a little accumulation of health, when you go home take care of it as a precious gift that Providence has given to you, a precious opportunity; and you have now to make best of your opportunities instead of throwing them away.

ELECTRICITY IN THERAPEUTICS

(Continued from page one)

suffering and disease. While we are held in awe of its terrific power as manifested in deadly bolts from the highly charged wires that overhang our heads, the most delicate invalids find solace and soothing in the gentle waves which pass in soothing thrills through their nerves and various tissues.

The managers of the Battle Creek Sanitarium were among the first to perceive the help that could be gained from so potent and universal a force. Electricity is one of the essential powers of the natural world, one of the elements in which we live, move and have our being; as universal as the air we breathe, capable, like the air, of wielding destructive force, and potential like the air in ministering to men in many ways.

For many years the gentler currents of

Galvanic and Faradic Electricity

were employed in local applications as stimuli and sedatives, and were introduced into the water baths, in all of which they abundantly proved their power for good. Then the incandescent light was brought into requisition by the superintendent of the Sanitarium in the now famous electric-light bath, which originated in this institution and quickly won its way over and around the world, and was soon found in the homes of kings and emperors. The electric light carries the two salutary forces of heat and light, both of which are of the greatest value therapeutically. As a heating agent the electric-light bath eclipsed the old Turkish bath. In the former the patient obtained in eight minutes that for which he was obliged to stifle in a heated room a half hour. He obtained in the shorter time much better results than under the old bath with far less loss of strength and vitality, for the old Turkish bath was a serious drain on the vitality of a weak patient. And in addition to the heat of the electric lights, the light itself penetrating the tissues awakened new life and vigor and the bath became a tonic as well as a depurating agent. The electric-light bath is still largely employed in the Sanitarium treatment rooms, no less than fifteen of them being in constant use.

Not only is the incandescent light employed, but more recently the

Penetrating Rays of the Arc Light

with greatly increased powers are brought into use. Rays of 6,000 candle power are brought into requisition in the treatment of the skin. High frequency currents of wonderful power are used to treat the most deli-

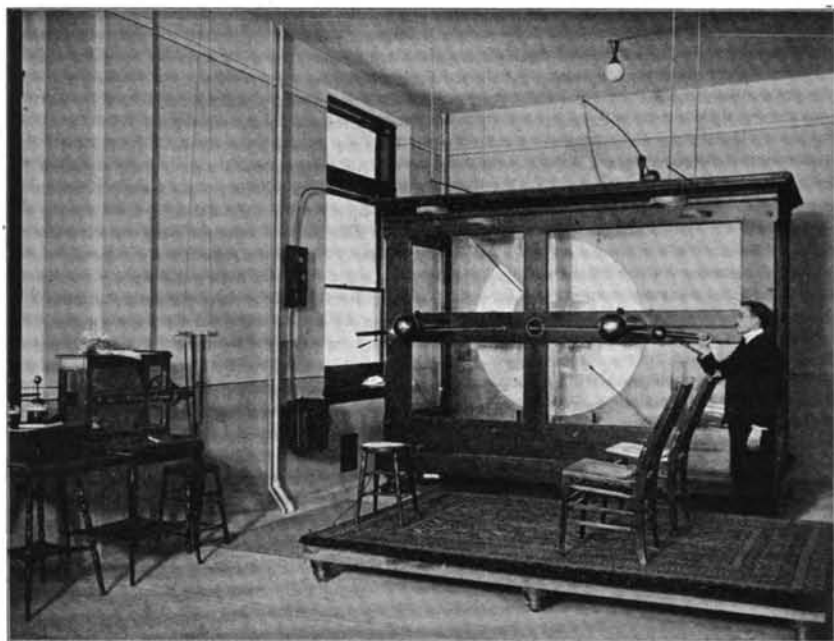
cate tissues, so completely does this mysterious force lend itself to the needs of suffering humanity. The famous X-ray is also employed with its penetrating power to discover pathologic conditions, to point out the real seat and nature of troubles that without their aid would perplex the physician. And their therapeutic effects are being most thoroughly and carefully studied with great results for good.

While the beneficial effects of luminous treatments are being followed up so thoroughly, the more direct application of electricity to the system is also being developed.

The Sinusoidal Current

was discovered and developed in this institution. This is an alternating current whose influence in many diseased conditions is very beneficial. The application of static electricity for sedative effects is also used very extensively in the treatment of many forms of nervous ailments.

To patients wholly unaccustomed to the use of electricity there is apt to be somewhat



STATIC MACHINE

of a dread of its occult powers, for they know that there is an intimate relation between that which is to thrill through their systems and the lightning that shivers the oak, and they are naturally a bit suspicious of what may happen. But this dread is soon dissipated with better acquaintance, and even the most nervous patient soon comes to enjoy with keen delight the various applications of electricity as they are given in the hands of careful operators under the supervision of skilful physicians.

AN IRISHMAN'S THOUGHTS

(Continued from page one)

way to settle it. The distress has almost ceased in many parts of Ireland, chiefly through the efforts of Sir Horace Plunkett, a member of the Privy Council, and an ex-

member of the English Parliament, who for many years has almost single-handed and in a most practical way been battling to solve the great questions which have troubled the Irish people. Sir Horace Plunkett has kindly consented to talk to us a little tonight; and I am sure that you will greatly appreciate his address.

SIR HORACE PLUNKETT: I am afraid Doctor Kellogg was not correct in describing my work for Ireland. He has described quite accurately what I would like to have done, but I am afraid he is astray in his description of my actual achievement. But I have not come here to-night to talk about my own country, but rather about yours. In acceding to the request that I should say something to my fellow guests of this institution, I had to think of some subject that was interesting to them, and I know that it is necessary that the subject should also be interesting to the speaker. Now it appears that the subject of conservation which I have chosen is extremely interesting for me, and, I think from your appreciation of Mr. Pin-

chot's address some nights ago, that it is deeply interesting to you as well.

I have given as

The Title of My Address,

"An Irishman's Thoughts on Conservation," because it happens that it came my way to see a good deal of the beginnings of the conservation idea in this country, and possibly the small narrative that I have to tell you as to what was pending in Washington when the conservation idea was born may be of interest to a great many here. Possibly I am not as modest as some men, and so like to talk about myself, and where it is necessary to my narrative to speak of myself, I shall not hesitate to do so.

The subject of conservation from an Irishman's point of view as I am going to speak

(Continued on page five)

The Battle Creek Idea

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GET EXAMINED

THE recent death of Paul Morton, the noted financier, president of the Equitable Life Assurance Society, of apoplexy at the age of 53 years ought to be a lesson to every business man who is fifty years of age or over. Mr. Morton supposed he was in perfect health until he had himself examined by the experts of his Company for the purpose of taking out additional life insurance. He then discovered that he had Bright's disease, arteriosclerosis, and high blood-pressure, and so he could not be insured. A few weeks later he died of apoplexy.

If every business man fifty years of age or over would submit himself to a like examination, there is no doubt that at least ten per cent of the entire number would be found to be suffering from similar conditions. Some years ago when the Czar of Russia died of Bright's disease, a large number of business men in Paris, where the Czar was well known, submitted themselves to their physicians for examination, and it was reported in the French medical journals that over ten per cent of the entire number were found to give evidence of disease of the kidneys. Thorough examination of the blood-vessels would doubtless have shown arteriosclerosis in a much larger proportion of cases.

This disease is rapidly increasing in the United States at the present time. The number of deaths from disease of the arteries has increased threefold within the last ten years, according to the reports of the United States Census Bureau. This rapid increase of disease of the arteries is not properly to be attributed to the increased intensity of business life, but rather to the use of tobacco, alcohol, tea, coffee, beefsteak, in connection with sedentary life. When a business man breaks down in health, it tickles his vanity to have his physical bankruptcy attributed to too great devotion to business.

Diligence in business is by many regarded as a cardinal virtue. However this may be, it is true, in the opinion of the writer, that few business men break down from over-

work, perhaps none at all. Lack of sleep and worry may contribute to the physical breakdown of the business man, but the real cause in by far the majority of cases is the use of alcohol, tobacco, tea, coffee, beefsteak, neglect of exercise and other matters of personal hygiene. Rest and sleep will repair all the injury which work does. The cigars which the average business man smokes tax his constitution vastly more than the work which he does, no matter how strenuously he may labor.



DEATH OF DR. JOHN F. BYINGTON

DR. JOHN F. BYINGTON, an honored member of the Sanitarium medical staff, chief of the eye, ear, nose, and throat department, died on the 27th ult. His illness began on the 21st of January with a small infection on the forearm. Prompt and vigorous treatment was at once instituted and was continued until death occurred. Examination of the blood at the beginning showed practically no leucocytosis, an ominous symptom, indicating that the system was unable to combat the disease. Subsequent examinations showed still lower resistance. The redness and swelling extended to the shoulder, and even to the side of the chest. The kidneys later became involved and their condition grew worse, due to the toxins produced by the bacteria which caused the disease. There was throughout marked weakness of the heart. The fatal termination of the disease was probably due both to the unusual virulence of the bacteria and to the lowered resistance of the patient, which was caused by intense application and too little sleep. Doctor Byington was greatly respected and admired professionally and socially, and his loss is keenly felt.

QUESTION BOX DEPARTMENT

EACH Monday evening Dr. Kellogg conium parlor, where all guests and patients are at liberty to submit questions relating to health and health topics.

Q. Is a red skin and face a sign of health or otherwise?

A. If one has naturally a red complexion, it is a sign of health. If his complexion is not naturally red, a ruddy nose would indicate irritation of that region, and indigestion is the most common cause of it.

Q. I heard a prominent physician state that chocolate is injurious to the kidneys, as it forms a coating over the same and prevents them from doing their duty. Is this correct?

A. His explanation is not correct. Ordinary chocolate contains theobromin. The theobromin is a poison and produces the same effect upon the kidneys that uric acid does; so it is injurious on that account.

Q. Is rheumatism in any sense contagious?

A. Acute rheumatism is an infection, and there are some cases which seem to suggest that the disease may be communicated from one person to another. The disease is unquestionably an infection in the majority of cases. There seem to be a number of different germs which produce rheumatism. It sometimes appears in connection with scarlet fever. It not infrequently occurs in connection with sore throat, tonsillitis, and quite a number of other maladies.

Q. Are tomatoes wholesome, and do they produce cancer?

A. They are very wholesome, indeed. They have not the slightest tendency to produce cancer. I think they are preventive of cancer, if they have any influence at all. The tomato is a very wholesome vegetable-fruit. The acid of the tomato is citric acid. It was formerly supposed to be oxalic acid, but that is an error. Citric acid is the same acid that is found in the orange and the lemon, with some characteristic flavors added.

Q. Are there any preventive measures to be used when infantile paralysis threatens?

A. Yes. Be careful to avoid contact with other children. The disease is contagious or infectious, so it is necessary that we should avoid the contact with those that have it. Another thing is to build up the vital resistance in every way possible. It is not a disease confined to children; it is more deadly in adults than in children. About sixty per cent of those who have the disease are likely to be permanently paralyzed on one side or on both sides. Cases have been very rare indeed in this country until within the last three or four years. Within this time it seems to have been imported from Scandinavia, where it has been epidemic, and it is beginning to spread in this country.

Q. What food should one eat who has an excess of bile in the stomach?

A. Such a person should avoid the use of

animal fats. Not because fats attract bile, but because fats remain in the stomach a long time, and interfere with the secretion of gastric juice. Gastric juice is a stimulus to the stomach. As the gastric juice is created, the stomach begins to contract, and as the secretion increases in intensity, and the acidity of the stomach becomes greater, the motions of the stomach become more vigorous, and when the stomach is contracting vigorously in passing its contents downward, the bile can not easily flow backward into the stomach. And one reason why the bile enters the stomach is because the stomach is prolapsed. The point at which the bile enters the intestine is a little below the stomach. But if the stomach be prolapsed several inches, it will permit the entrance of the bile into the stomach, because the stomach has been lowered, and the bile runs in the wrong direction. The cure for that sort of case is an abdominal bandage to lift the stomach up. And the patient should lie on the right side for half an hour to an hour to rest after eating a meal, and that will prevent the bile from flowing up into the stomach.

AN IRISHMAN'S THOUGHTS

(Continued from page three)

about it relates to, as I think, the most important aspect of the whole question of conservation: of the natural fertility of the soil and that portion of the population—the one-half of the population, I believe, approximately—who, in the language of Roosevelt, devote their energies to growing things from the soil.

In the late fall of 1905 I was still, not a member of Parliament, but chiefly responsible for the administration of a very important government department for the development of agriculture and other industries, and for technical instruction to farmers. For the last twenty years, ever since I gave up my calling of

A Ranchman in the Rocky Mountains,

for the less healthy occupation of a politician, I have visited the United States every year in my holidays. I have done this for two reasons, particularly because I had some business interests in the West, and still more because I had been deeply interested in some other works, especially the work relating to the agricultural population, both of the federal government and of the several State governments. So I used to combine business, pleasure, and study in my annual holiday.

In the winter of 1905-06, I went to Washington, and after I had received the extraordinary courtesies shown to a traveler in this country by all the officials, I went in the ordinary way to express my thanks to President Roosevelt for all of the many kindnesses he had done for me. He asked me the object of my visit and my special interest in the subject I had to state to him. I told him, and he asked me to come and see him again when we could have a longer talk. I went and I talked with him for an hour and a half, and explained to him exactly what the information was that I was trying to get in the United States and wished to use in Ireland.

At this point I think I shall explain to you

The Situation in Ireland

in regard to this matter of building up country wealth. As the Doctor has told you, Ireland has some grievances of which the world occasionally hears. I am afraid that he is a little optimistic in his statement that the grievances are mostly removed. I don't know what we should do if they were. It is true that things are a great deal better than they were. I am not going to discuss the question of home rule for Ireland here; but there is another question which is approaching settlement; namely, the land question.

I think it may be said that in every European country there either has been, or is pending, or is going to be,

An Agrarian Revolution;

that is, the tiller of the soil struggles to get the ownership of the land, and in the end he always gets it. In Ireland there is such a conflict. The owners of the soil, who became so through conquest, held their land chiefly by right of conquest originally, and the owners of the soil have been at war with the occupiers. For the last thirty or forty years all kinds of legislation has been tried to bring about a better state of things between the landlord and tenant in Ireland. In 1881 Mr. Gladstone introduced legislation which, at any rate, considering the time at which it was introduced, was the most radical legislation of the kind which I think had ever been known. Briefly, it provided for an impartial tribunal which had power to fix the rent which the tenant should pay and the landlord receive. As long as the tenant paid that rent, he could not be removed from his holding. If he wished to sell his interest in his home, he could sell to the highest bidder, so that the landlord simply ceased to be a landlord in the ordinary sense, merely what we call a rent-charger; that is, he had a fixed payment out of the property, the amount of

which was decided by an independent tribunal, and it was called a "fair rent."

That legislation

Would Have Abolished the Land Grievance

had it not been that at the time of its enactment there arose another trouble, which affected the whole of Europe, and it came from this country opening up vast tracts of virgin soil in your middle and far West. Steam transportation and the process of preserving produce fresh in transit over the longest routes, set up what the economists call a rural market, and the farmers of the whole of Europe found that they were brought into competition with this country first, then with other distant countries, and finally with the whole world. This new factor took away from the success of the Irish farmer; the Irish farmer could not get as much as he wished because of the reduction in prices, and consequently the land question was not settled. Finally the single ownership by the landlord having been abolished, and dual ownership between the landlord and the tenant, having broken down, the only thing to do was to vest the ownership absolutely in the occupier of the land, and in the year 1903 an act was passed by which the British treasury advanced two hundred million pounds, that is, a billion dollars, to enable the Irish tenants to purchase their holdings. They got the money on extremely favorable terms: at two and three-fourths per cent, to be repaid during a period of sixty years; so that, so far as tenure is concerned, that question is settled.

It may be interesting to you to know these rough details, but they are not quite germane to the subject of conservation.

The Exact Point

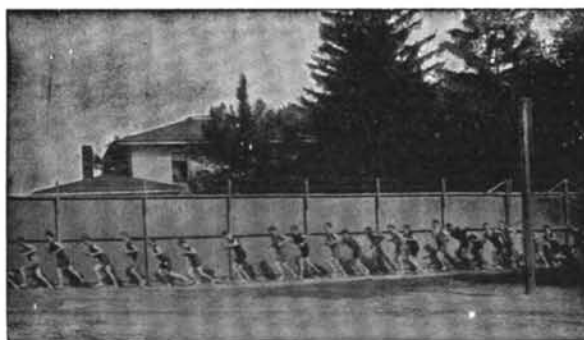
that I want to get at is this: that the work in which I have been engaged with a large number of men, and the agrarian revolution which has affected so many countries,

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WM. W. HASTINGS, DEAN, SANITARIUM, Battle Creek, Mich.

must show sooner or later that the tiller of the soil will be the owner of the soil. At the same time, we saw that the pressure of foreign competition had come to stay, and that not only had it come to stay, but facilities of transit would keep on increasing it still. So it became necessary to devise a new agricultural economy, to build up an industry by which the Irish people could live and thrive, and we saw that the whole success, no matter what form of government we had, depended absolutely and entirely upon the way in which they conducted the agricultural industry, and in the last analysis the total prosperity of the Irish people depended on this.

My inquiry in Washington referred to the study of everything connected with the building up of the agricultural industry of the United States. I remember Mr. Roosevelt saying to me that the difficulty he had in interesting the people was that when he tried to get them to concern themselves for improvements in the social life of the country they always said that that was out of date; that the towns were improving at such an extraordinary rate that the more people lived in the cities the better; that the day of the farmer had gone by, and it was the day of the city, and all that kind of talk.

And as I left he said, "Now, we have had a very interesting conversation. When you get home, I wish you would write me just what you have said to me. I would like to have our people have your view of the question." When I got home I thought it would be of

No Use to Write to Mr. Roosevelt,

as the letter might not get past his secretaries. But I got a rather characteristic letter from him, and then I had to sit down and write a letter to him. I have here a passage in that letter, which will give you better than any words I can say what was in my mind.

I said, "One can not but admire the civic

pride with which Americans contemplate their great centers of industry and commerce, where, owing to the many and varied improvements, the townsman of the future is expected to unite the physical health and longevity of the Boetian with the mental superiority of the Athenian. But we may ask whether this somewhat optimistic forecast does not ignore one important question. Has it been sufficiently considered how far the moral and physical health of the modern city depends upon the constant influx of fresh blood from the country, which has ever been the source from which the town draws its best citizenship? You can not keep on indefinitely skimming the pan and have equally good milk left. In America the drain may continue a while longer without the inevitable consequences becoming plainly visible; but sooner or later, if the balance of trade in this human traffic be not adjusted, the raw material out of which urban society is made will be seriously deteriorated, and the symptoms of national degeneracy will be properly charged against those who neglected to foresee the evil and treat the cause."

Mr. Roosevelt Wrote to Me

that that entirely met his views, and we were in frequent correspondence on this subject of such immense interest to us both. It was at that time that I first heard the conservation idea even mentioned. It was then I met the man who has since become a very close and true friend of mine, Mr. Gifford Pinchot. I went to his forestry office, and of course we began talking about trees, of which I knew nothing and did not care very much; but I soon found that he was not only a thoroughly trained forester, but that he had the most statesmanlike views.

He of course was charged with the conservation of one of the great American assets, the timber supply. But all the time he was thinking whether the extravagant waste

of this important national resource was not indicative of an unhappy state or attitude of the public mind toward all national resources. And to sum up in the briefest way that I can the view that he seemed to have been settled upon in his mind, I find that he was applying to the public opinion of this country this test: How far were the American people applying their energies to the conservation and the development of their material resources; and looking over the whole field of these resources, he had come to the conclusion that the American people had somehow drifted into a profligate extravagance, from which it was the highest duty of statesmanship to try to arouse them by arousing public opinion. His record since then is well known to you all, and the splendid service he has done in bringing home to the American people the duty that they have inherited, the duty to concern themselves for the welfare of future generations.

ARRIVALS

THE arrivals at the Battle Creek Sanitarium for the two weeks ending January 29 are as follows: Phil B. Moore, Mo.; Sam Maas, City; Madame M. F. Mountford, Jerusalem; C. B. Buggins, Tenn.; Chas. H. Robb, N. Dak.; A. W. Mittern and W. W. Miller, Ia.; Miss Mary Waldo and Mr. and Mrs. H. L. Waldo, N. Mex.; Miss Edna M. Place, Ind.; Mrs. Sam Henderson, Ark.; Mrs. Louis Werstein, City; Miss Nell Forbes, Ga.; F. E. McNamara, Cincinnati; Harry Oberg, Kan.; E. F. Sherwood, N. Y.; W. D. Cannon, Jr., Ia.; J. E. Hollway, Tenn.; Mrs. Jno. King Hubbard, P. R.; J. J. Regan, Wis.; David W. Teachout, Cleveland; Mrs. C. A. Jakle and Edyth Jakle, W. Va.; A. F. James, Pa.; T. C. Pierce and family, Pittsburgh; C. D. Harris, New York City; Mrs. Maude Sweet and Howard Sweet, Mich.; Ala Cohen and A. S. Davis, Chicago; Mrs. W. F. Nichols, Mo.; O. F. Winter, W. Va.; W. F. Cole and J. R. Smith, Minn.; Robert Taylor, Detroit; Mrs. F. B. Cehutz, Milwaukee; Miss H. E. Hoyt and children, Ill.; Mrs. N. F. Reed, Ia.; Clarence A. Shamel and Chas. Y. Stevens, Chicago; R. E. Hall, Wis.; John H. Claypool and wife, Ind.; B. P. Smith, Mass.; W. W. Lahes, Chicago; Mrs. Frank Picketts, Ill.; J. P. Hillis, Washington, D. C.; Chas. H. Marsh, New York City; F. W. Iseman, Ia.; S. W. Treney, Chicago; Mrs. R. Fuller and Byron Phillips, Wash.; H. S. Harwood and wife, Toronto; John L. Moyer, Ia.; Miss Mary Colt and Miss C. Colt, Pa.; A. C. Johnson, Chicago; J. Farleigh, Mo.; B. F. Dewey and Mrs. Dewey, Ill.; G. A. Folke, Ohio; D. C. Stevenson, Ill.; Thomas Crane, Mass.; R. J. Kirchner, Detroit; A. G. Schneider, Chicago; J. G. Howey and J. H. Myler, Detroit; Dietrich Lamade, Pa.; Henry Kapp, City; Edw. Rowland and family, Ky.; C. E. Bailey, N. Y.; S. J. Thoms, M. D., and wife, and W. Thoms, Mich.; Geo. G. Reed, Colo.; Mrs. W. C. Sifton, Ont.; Rev. W. W. Dwine and W. E. Hoey, Mich.; Mary B. Fiddick, Ill.; W. A. Crabb and wife, Mich.; Mrs. F. S. Finley and Miss Jeffrey, Ia.; James Hurley and C. E. Wilbert, N. J.; Rev. Henry Ostrum, Ind.; Frank F. Bock, City; J. B. Lewis and wife, Boston; Wm. McPherson,

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Sanitarium,

Battle Creek, Mich.

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News and Personals

Miss Joan Davis, of India, is stopping at the Sanitarium for a few days on her way to her mission field in Bombay.

Miss Wayne, a graduate nurse of Cleveland, who accompanied a patient to the Sanitarium, is improving the opportunity to investigate the methods and training of Sanitarium nursing.

Dr. J. R. Welch, of Spencerville, Ohio, is at the Sanitarium for a period of rest and recuperation. Doctor Welch is well known to the Sanitarium faculty, having frequently sent patients here for treatment.

Dr. C. B. King, the oldest physician in Allegheny, Pa., is visiting the Sanitarium. Doctor King is accompanied by his wife, who has had a nervous breakdown.

The Misses Sarah and Elizabeth Metcalf, government teachers from the Philippines, are making their first visit to the Sanitarium, where they are taking a period of rest and recuperation preparatory to returning to their field of labor.

Four of Battle Creek's merchants are taking a period of rest and recuperation at the Sanitarium. They are: Mr. F. F. Bock, hardware merchant; Mr. Sam'l Maas, clothier; Mr. Chas. J. Wells, milliner; and Mr. Henry Kapp, of the Kapp Clothing Co.

We present this week the first installment of an address by Sir Horace Plunkett, of Dublin, under the heading, "An Irishman's Thoughts on Conservation." Our readers will find in this speech very profitable reading. It was not practicable to present it all this week, consequently a portion of it is left over for a later issue.

Dr. J. H. Kellogg has recently been appointed by Governor Osborne a member of the State Board of Health. This is the fourth time Doctor Kellogg has been appointed to this position, he having previously served during more than twelve years in this capacity, and having received appointments from four different governors.

The storerooms located in the west half of the Sanitarium basement have been cleared out and the rooms are being remodeled for a refrigeration plant which will be installed very shortly. The purpose of this plant will be to manufacture ice, and to provide for convenient cold storage. The latest system of refrigeration will be employed.

Word has been received from Mr. Harrison S. Elliott, national secretary of the Y. M. C. A. for Bible study, that it will not be consistent for him to be in Battle Creek at the time announced, the 28th and 29th of this month. Consequently the Bible Institute is postponed for a few weeks. More definite notice concerning it will be given later.

Among the recent arrivals are Mr. E. V. Zollars, of Enid, Okla., President of the

Christian University; Mr. J. W. Bohn, of Fort Wayne, the Fire Insurance Inspector of Indiana; Dr. C. G. Church, of Van Wert, Ohio, who is connected with the *Journal of the American Medical Association*; Dr. H. E. Kirechner, of Oakdale, Ia.; John Stillwell, of Quincy, Ill.; manufacturer of steel wheels.

Dr. E. L. Eggleston has returned from Vienna, where he has been taking post-graduate studies for the past few months. Doctor Eggleston sailed from Naples and encountered a terrible storm in mid-ocean. No lives were lost, but considerable damage was done to the vessel. Doctor Eggleston makes a good sailor, having had no symptom of *mal de mer*, either going or returning. This speaks well for a low-protein diet.

We have with us Mr. Ernest Kellerstrass, of Kansas City, Mo., who is prominent in the advertising business and is also the owner of a large fancy poultry farm. It is reported that he recently sold to a prominent singer a flock of five fowls for \$7,500, and that he has sold other flocks for from \$12,000 to \$15,000. He has in his possession at the present time what is reported to be the best hen in the world, for which he has refused an offer of \$10,000.

A meeting of unusual interest was recently held in the main parlor under the direction of the Sanitarium W. C. T. U. Dr. and Mrs. W. L. Thompson, from Rhodesia, gave a most interesting and instructive account of their efforts to bring to the natives of this section not only physical and spiritual healing, but instruction in agriculture and the various trades. Mrs. Thompson gave some interesting details of the habits and home life of this simple people. Many excellent photographs of missionaries at work, their native students, their primitive huts, and their present attractive homes, and scenes of the surrounding country were shown to the interested audience.

Recently Mr. A. J. Grief, manager of large sugar plantations in Guanica Centrale, Porto Rico, and in San Domingo, called on the Sanitarium management for a physician and surgeon for a new and extensive sugar plant which they are developing in the island of San Domingo. Mr. Grief has several times been a guest at the Sanitarium and appreciates the value of the Battle Creek Sanitarium System. Dr. A. R. Smeck, a graduate of the American Medical Missionary College, was selected for the place. He has already departed for his field of work and carries with him the best wishes of his many friends here who are glad to have the principles of the institution planted in this distant and needy field.

The Sanitarium family were called together on the evening of the 23d ult. upon short notice, for the purpose of welcoming Drs. E. L. Eggleston, J. F. Morse, and Jean Whitney-Morse on their return from Europe, and at the same time to say good-bye to the Doctors Morse, who are soon to leave for Porto Rico. The company consisted largely of nurses and physicians who have been intimately associated with these members of the

medical staff and have learned to love and respect them. Brief remarks were made by Doctor Kellogg, Doctor Morse and Doctor Eggleston, and the bonds of friendship and fraternity were strengthened by a very pleasant evening's association.

The Christian Endeavor meeting on Friday evening was led by Dr. W. F. Martin, who introduced Dr. John F. Morse as the principal speaker of the evening. Doctor Morse is much beloved by the Sanitarium family and the joy of welcoming him home from Scotland with his newly acquired title of honor was tempered by the fact that he was so soon to leave for Porto Rico, where he is going to take up mission work in the immediate future. These facts lent a very peculiar interest to the occasion. Many of the members took part in the meeting, which was of a most inspiring and helpful character. The topic for this week is "A Missionary Journey around the World."

On Thursday afternoon the large audience gathered in the parlor seemed to thoroughly enjoy being transported for a time into the heart of West Central Africa. The stereopticon pictures showing the primitive modes of travel, manner of life and customs of the natives, and methods of hut building and house building were all very excellent, and were greatly enhanced by the vivid descriptions of Mrs. H. A. Niepp, who has been for several years one of the Congregational missionaries in that region. Her love for the natives and evident joy in their progress from heathenism to Christianization and civilization, struck a responsive chord in the sympathy of her audience, as was shown by the prolonged and hearty applause.

Madame Mountford, the brilliant and talented Chautauquan lecturer, is a recent arrival at the Sanitarium, where she has come for a period of rest and recuperation following a serious illness. Madame Mountford was born in Jerusalem, and is an eminent lecturer and interpreter of the manners and customs of the Holy Land. On Sunday evening Madame Mountford addressed a large and deeply interested audience in the main parlor of the Sanitarium. The subject of the lecture was "The Nobleman in a Far Country," based upon the parable of the ten talents. In her series of lectures and addresses on the Holy Land she depicts every phase of Biblical life. She makes the Bible seem a living book by her vivid representation of Bible scenes and customs.

The Social Hour on Wednesday afternoon was well attended. The audience seemed to greatly appreciate the kindness of the various guests who contributed to the enjoyment of the informal fireside gathering. Mr. Lehman gave some very fine selections on the violoncello, and Miss Dessie Jones, an accomplished pianist, contributed two beautiful numbers. Chaplain McCoy took his audience on a trip up Mount Vesuvius, and in spite of heat and ashes and open fissures, landed them safely in old Pompeii. Rev. Dr. Bare, president of Reid College in Lucknow, piloted his audience through some of

the weird and picturesque sights of that city. Miss Zahn sang the dear old song entitled "Daddy," which always makes so strong an appeal to its hearers, and Mrs. Lowry contributed some intensely interesting stories of China which were descriptive of different phases of national life.

Dr. A. J. Read gave two lectures in Big Rapids before the Ferris Institute graduates, comprising 1,500 young people just entering into the activities, who constituted one of the most promising and hopeful audiences one could meet. The closest attention was paid and deepest interest manifested in the health principles for which the Sanitarium stands. The subject presented was "The Living Temple," showing how the divine ideals are implanted in and entrusted to humanity for development; also showing from recently collected statistics how far man has come short of their full realization; how the inroads of disease have reduced the physical stature and interfered with mental and moral attainments; how by rational measures, regimen and training, it is possible for a man to restore the image of the divine.

Among the recent arrivals are Mr. W. H. Gold, a prominent banker of Redwood Falls, Minn.; Mr. C. E. Wantland, a real estate man from Kansas City; Hon. and Mrs. J. B. Lewis, of Boston, Mr. Lewis being the well-known temperance lecturer and president of the 20th Century Pledge Signing Crusade. Other arrivals are Dr. S. J. Thoms, of Holland, Mich., a medical missionary of the Dutch Reformed Church in India; Rev. W. Divine, West Holland, Mich.; Mr. Edw. Rolland, of Louisville, Ky., president of a dry goods company; Mr. Wm. J. Hoey, of Alpena, Mich., a retired business man, who has been for many years a close reader of *Good Health*, and is now making his first visit to the Sanitarium; Mr. D. Lamade, publisher of *Grit*, a progressive daily of Williamsport, Pa.; Dr. E. J. Kelley, a medical missionary from Hainan, China, who with his wife and children is here for a course of treatment.

In connection with the return of Doctor Eggleston from Vienna, noticed in another place, we also note that Dr. M. A. Mortensen, who accompanied Doctor Eggleston, is expected home within two or three weeks. These doctors report a very successful visit to the great hospitals of European medical centers, especially those of Vienna, where in one hospital three thousand patients are continually under care, and their cases are freely open to study of physicians who are there for the purpose of observation. Doctor Mortensen's knowledge of the German and other European languages gave him peculiar advantages both for himself and his associate. These members of the medical staff return to their duties with renewed energy and capabilities in the lines of practice in which they have already distinguished themselves. Several of Doctor Eggleston's old patients are here ready for him, and many of Doctor Mortensen's friends will be glad to know of his expected return.

Dr. John F. Morse took leave of his many friends at the Sanitarium for Porto Rico on the 25th. He was a member of the first class of physicians graduated from the American Medical Missionary College in the year 1899, and previous to his medical course of four years had taken the nurse's course, and served in that capacity. Since his graduation in medicine he has been connected with the Sanitarium as one of its valued and honored physicians, acting largely in the capacity of assistant surgeon. Doctor Morse has also been of great assistance in the moral and religious work of the place. Last year he and his wife, also a valued member of the medical staff, went to Europe, where considerable time was spent in study and investigation along professional lines. Doctor Morse passed the rigorous examinations of Edinburgh and Glasgow and brought home British medical qualifications.

He goes to Porto Rico at the call of one of the prominent sugar planters and manufacturers of the island, where he will have charge of the medical welfare of the people. He expects to have time and opportunity to minister to the natives outside of his regular work. His wife will follow him a little later. We bid these workers good-bye with a very great desire for their future welfare and prosperity.

An interesting group of young people, mostly nurses, gathered in the fifth floor parlor on Saturday afternoon to consider the advisability of forming a volunteer band of missionary nurses. The purpose has been steadily growing in the hearts of some of the Sanitarium nurses to devote their lives to the service of Christ on the foreign missionary field. The recent Missionary Conference brought matters to a focus. A preliminary meeting was held in which Dr. J. F. Morse related how much stress had been laid during the Edinburgh Conference upon the need for nurses. He dwelt upon the honor and privilege of being chosen for such service. Dr. W. L. Thompson, of Africa, spoke of the need for nurses and teachers upon his field, and dwelt earnestly upon the necessity that the Christ life should be the habit of life in all mission workers. Mrs. Dowkontt said that several missionaries during the recent conference had said that they knew of no place where nurses could be more efficiently trained for mission service than in the Sanitarium. A committee was appointed to make plans for a regular organization. So far as we know, this is the first organization of its kind in this country, and we congratulate the Sanitarium Christian Endeavor Society in being the first to inaugurate this noble movement, with its far-reaching possibilities.

Mrs. Married-a-month had a nice brace of pheasants sent her for Christmas, and told the servant to cook them for dinner on Boxing Day, as some friends were coming. Next morning the girl asked, "Please, mum, do you like the birds 'igh?" Mrs. M.—"Like the bird's eye, Mary? What do you mean?" Mary—"Well, mum, some folks likes the birds stale." Mrs. M.—"Oh, like the bird's tail? Yes, certainly, Mary; bring in both the eye and the tail."

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AN IRISHMAN'S THOUGHTS ON CONSERVATION

An Address in the Sanitarium Parlor
by Sir Horace Plunkett,
of Dublin

(Concluded)

In the autumn of 1906 a speech was made in the United States that to my mind stands out as one of the few speeches, in my time, that have really been important. It was made by Mr. James J. Hill to a body of Minnesota farmers. In this speech Mr. Hill made most astounding statements upon the subject of the waste of natural resources. It was a lengthy speech, and I can not do more than to refer to it. The resources of a country may be divided into two classes: those, chiefly the minerals, which when used can not be replaced; and those, chiefly from agricultural sources, and forests, which are capable of almost indefinitely increasing reproduction. Mr. Hill took the

Case of Coal and Iron,

the most important of the resources for manufacturing, and showed that these were being used up at a most extravagant rate. Of course I know that opinions of experts differ very widely as to the real amount of these resources, but one thing I wish to emphasize is that the easily obtained coal and iron are being used up in such an extravagant way that in future generations the cost of both these great national assets must be greatly increased.

(Continued on page three)

Sanitarium Diet

What Does the Sanitarium Give Its
Patrons to Eat?

THAT is a question uppermost in the minds of very many people who contemplate a visit to the institution. A very large number of our patrons confess that they were discouraged about coming here because of the fear they entertained that they should be "starved to death." It is quite generally understood, and correctly so, that the institution does not place meat upon its tables. And people



A MARKET SCENE IN ALGIERS

generally are of the impression that where meat is tabooed there can be but little left.

But the Sanitarium bill of fare does not consist of "thou shalt nots." On the other hand, it permits and encourages the use of a broad and liberal dietary. There is no risk in the statement that no hotel or caravansary of any description provides for its patrons such a wide and tempting variety of the best and purest of foods as the Sanitarium daily sets before its people.

(Continued on page three)

HOW THE ARTERIES BECOME HARDENED

Various Causes for Arteriosclerosis Are
Stated by Dr. J. H. Kellogg in a
Parlor Lecture—A Plain Talk
on an Important Theme

AUTOINTOXICATION is the great cause of hardening of the arteries. Other causes produce it, however. The use of water from lead pipes is very likely to cause hardening of the arteries. It is possible that hardening may come from the habitual use of fruit that is put up in tins which contain lead. This was formerly a common cause of lead poisoning, but at the present time there is careful supervision of the tin used to see that it does not contain lead. Tobacco is another cause. Alcohol is another. Mustard, pepper, peppersauce, ginger, capsicum, cayenne, horseradish, and all the rest of the spices, condiments, and things of that sort, and tea and coffee,—these are all causes of hardening of the arteries; and among the other things I must mention meat-eating, which is the cause of almost universal autointoxication.

How I Know

And now you want to know how I know, and I don't wish to make a statement to you that I can not back up with scientific facts; so I am going to tell you how I know that my statement is true. Professor Huchard, of Paris, who is the world's greatest authority on the question of blood-pressure and hardening of the arteries, as well as several

German investigators, has made an experimental study of the subject. They took the various kinds of spices and condiments, and made extracts from them and injected these extracts into the veins of dogs, and of rabbits, and of other animals, and at the end of four months they found great patches of lime deposited in the walls of the arteries.

These poisons are irritants. They irritate the lining membrane of the arteries which is far more delicate than the lining membrane of the eye,—it is a living membrane, and wonderfully delicate and sensitive in its structure. When the blood contains these poisonous substances, they irritate this membrane and set up an inflammation. The arterial wall is thereby weakened. The disease extends to the inner layers, and often the outer layers of the vessel, so that the wall is weakened. This tough, strongly resistant wall is softened by the inflammatory process, and afterward fat is deposited in the place of this fibrous and muscular structure.

To keep the vessel walls from bursting, nature builds up a barricade of lime, to harden the wall, and so give it more resisting power. It is a process of defense. Now, what I have stated with reference to mustard, pepper, peppercorn, and ginger, and all these irritating substances, is equally true of every other soluble poison which may be taken into the blood. It is true of tobacco and of alcohol, because they, too, are irritants.

Tea and Coffee Injurious

A cup of coffee contains much more caffeine than the same amount of urine contains of uric acid, and the caffeine and uric acid are practically equivalent. Uric acid is oxyxanthin, and the caffeine that coffee contains is trimethylxanthin; they are both xanthins, and they are practically the same thing. I will give you the figures and facts about it. The average amount of renal secretion for the day is forty-eight ounces, or three pints. The amount of uric acid produced in twenty-four hours by the average person is six grains. An ordinary cup of coffee weighing six ounces contains four grains of caffeine, which is equivalent to four grains of uric acid. Now, six is contained in forty-eight eight times, and eight multiplied by four is thirty-two; so eight cups of coffee would weigh forty-eight ounces, in which there would be thirty-two grains of caffeine. In an equal amount of secretion of urine there are only six grains. That is, forty-eight ounces of kidney secretion, which is a day's product of kidney work, has six grains of uric acid; but forty-eight ounces of coffee contain thirty-two grains of uric acid in the form of xanthins.

So that is a serious thing to contemplate. Let us illustrate it. Here is a person whose kidneys are doing ordinary work on a normal diet, eliminating six grains of uric acid daily. That is a day's work for the kidneys. Now, this person takes three cups of coffee which contain twelve grains of caffeine. He adds to the kidney work two days' work. A pound of beefsteak contains fourteen grains of uric acid. Suppose he takes beefsteak and coffee too, and that is a very common breakfast,—half a pound of beefsteak and a couple of cups of coffee. That would equal eight grains of uric acid for the coffee, and seven grains for the beef, fifteen grains of

uric acid, and that is nearly three days' work for a healthy pair of kidneys.

The Cause of Bright's Disease

That is why people are breaking down with Bright's disease all over the country; that is why 267 people die of Bright's disease in Chicago to-day where only 100 would have died thirty years ago in the same population. It is largely the tea and the coffee and the beefsteak that are doing it. How do we know that caffeine, then, the equivalents of uric acid, will cause hardening of the arteries?—We know by actual experiments. The blood-pressure rises at once when uric acid is taken in. A person takes a cup of strong coffee, then takes his blood-pressure, and finds it has gone up several points. This repeated irritation leads to hardening of the arteries.

How about tobacco? It is proven experimentally that a single cigar will raise the blood-pressure twenty points in thirty minutes. A stroke of apoplexy has come upon many a man when he had a cigar in his mouth. That cigar was just the thing that raised the blood-pressure high enough to rupture a blood-vessel in his brain.

Professor Boix, of Paris, has shown by experiment that alcohol causes hardening of the arteries. He gave rabbits alcohol, and then examined these rabbits at different periods after the alcohol was administered, and he found in every case they got hardening of the arteries, hardening of the liver, hardening of the spleen, and hardening of the kidneys, and the poor creatures finally died with arteriosclerosis.

I have told you that

Intestinal Autointoxication

causes hardening of the arteries. Professor Huchard, of Paris, who, as I have said, is the world's greatest authority on blood-pressure and arteriosclerosis, says that intestinal poisons are the chief cause of arteriosclerosis. But if we need something besides his statement for it, Professor Boix, of Paris, has proved it by decisive experiments. He took the germs found growing in the colon and administered to rabbits cultures of beef-tea in which the germs were growing. They had hardening of the arteries, hardening of the liver, and other parts of the body, and it killed them.

These are no longer hypothetical ideas; they are demonstrated, so there is absolutely no doubt about it. That is why I speak so earnestly. This is the biggest question we can discuss here. You hear enough about politics; I do not need to talk to you about that. You are all civilized men and women, so I do not need to talk to you about civilization. Therefore I am saying to you the things others may not say to you. I do not think it is worth while to talk to you just for the sake of talking. I wish to have what I say take effect; and I hope some of the things I say will sink deep enough into your minds so they will influence your lives. The poisons that are produced in the colon and absorbed into the blood are unquestionably the greatest of all causes of hardening of the arteries.

Sedentary Life

Perhaps another thing that I should mention is the sedentary life—too little exercise,

a life in which the body is so inactive that the blood-vessels are not filled to their full capacity every day, the heart is not stimulated to work, to force the blood into the arteries and veins and fill them full and to keep them from shrinking. Such a life is likely to lead to early decay. The people who live to old age have almost always been hard-working people. The farmer who works hard upon his farm, by and by gets along to the time when he thinks he ought to take life a little easier; moves to town, leads a life of leisure, lives on the rent of his farm, and in a few years he is a poor, old cripple, is miserable, rheumatic, dyspeptic, melancholy, and in a few years there is a funeral and he is carried off to the cemetery. Had he stayed on the farm he would have kept right on living and enjoying life.

The Lord told Adam he must earn his bread by the sweat of his brow; and the work that produces the sweating is necessary to keep the body healthy and young, and neglect of exercise is one of the great causes of hardening of the arteries.

Now, we put all these things to work together. Coffee and beefsteak for breakfast; a glass of whiskey now and then through the day, a sedentary life, sitting down in the office, smoking a cigar all the time when other things do not interfere; mustard, pepper, vinegar, ginger, to create appetite for that jaded stomach. These are all causes of arteriosclerosis, and they are all operating together in the cases of a vast number of business men in this country at the present time. And how it is any one can survive, I hardly see. It is remarkable to me that the human body will stand so much abuse. It is no wonder, then, that we find people with hardened arteries; it is no wonder we find people prematurely old.

I met a man not long ago who asked me to feel of his arteries. I asked him how old he was. He said, "How old do you think I am?" I said,

"You Are About 125 Years Old."

"Why do you say that?" I replied, "Because your arteries are hard enough for that." He said, "Why, Doctor, I am only forty-five years old." I said, "I can't help it; your arteries are more than 100 years old." "Well," he said, "what would I better do about it?" I said, "You had better go to getting young just as fast as you can. You ought to give the matter attention right away." "Doctor, I will go home and get my affairs settled, and I will come back in a couple of weeks and settle right down to business and let you do all you can to make me young again." I said, "Well, I think we can help you some." He went home, and three weeks later I had a letter from his wife saying, "I am sorry to say my husband will not return. He is dead." An artery ruptured in his brain and he fell dead.

This is not a trifling thing; arteriosclerosis, degeneration of the arteries, is like a fire burning in the house; it is not the neighbor's house, it is right in the very house in which we live, the only house we have.

The blood-pressure is

Never Any Higher than It Ought to Be.

A man who has a blood-pressure of 200 has to have a high blood-pressure. The heart

works hard to get the blood-pressure up to overcome the obstructions in the arteries and get blood enough through so that the brain will not famish. Nature works as hard as ever she can to keep up the blood supply. So when a man has a blood-pressure of 200, he should be thankful for it. But now he must begin to remove the obstruction, then the blood-pressure will gradually come down.

Caffein causes high blood-pressure, because it contracts the arteries. Nicotin and smoking tobacco cause high blood-pressure for the same reason. A confirmed smoker is pale because his arteries are contracted. Alcohol relaxes the arteries. That is why the two bad habits of smoking and drinking go together. One balances the other. A man smokes cigars, and his blood-pressure goes higher and higher; then he takes a glass of grog and that lowers the blood-pressure and he feels better. On the other hand, a man takes whiskey, and his pressure gets lower and lower, and by and by he is let down so low he smokes a cigar to raise the pressure; and the arteries are degenerating all the while, until they finally shrivel up with arteriosclerosis.

SANITARIUM DIET

(Continued from page one)

The discarding of meat is not a fad, but a step taken in obedience to a scientific dictum that can not be safely ignored in the treatment of disease and in securing to the people the best conditions for health and happiness. The consumption of flesh is unquestionably the source of a very large proportion of the diseased conditions now prevailing. Tea and coffee are harmful stimulants whose basic elements are recognized as poisons. The use of tobacco and alcohol is proscribed by the Sanitarium staff on the very best of grounds. These harmful things are coming to be tabooed by great numbers of intelligent people who desire to attain the highest degree of health and efficiency.

By a perusal of the following bill of fare, selected at random, the reader will get an idea of what is provided for the Sanitarium guests:

Menu

Cream of Okra Soup	Vegetable Soup
Panned Protose	Nuttolene—Jelly
Apple Fritters	
Baked Potatoes—Brown Cream Sauce	
Potato Loaf	Baked Egg Plant
Green Peas	
Date and Apple Salad	
Celery	
Whole Wheat Bread	White Bread
Entire Graham Bread	Breakfast Toast
Toasted Granose Biscuit	
Toasted Rice Biscuit	Bran Biscuit
Fruit Buns	Nut Butter
Pineapple Sauce	Dairy Butter
Steamed Figs	Malt Honey
Apple Juice	Grape Juice
Caramel Cereal	
Cream and Milk	Sanitas Cocoa
Ricoco	
Hot Malted Nuts	
Milk	Yogurt Buttermilk
Peach Cobbler	Oranges
Cabbage Salad	Pine Nuts

AN IRISHMAN'S THOUGHTS

(Continued from page one)

The conclusion that I recall was that at the then rate of wastage, a quarter of a century would leave the United States without any merchantable timber at all. And greater than all these wastages and leakages was the extravagant exhaustion of the natural fertility of the soil. The forecast of Mr. Hill's was that if something was not done to change this procedure, that within the period for which even this generation must in its own interests provide, the United States would not be able to provide for itself, and the cost of manufacture would be so increased by the waste of coal and iron and timber that it would be hard pressed to pay for the imported food material with its manufactured commodities.

Well, now, how true this may be, I can

not say. I am not a statistician; I do not know your country as I know my own; and how true that may be I do not know. But this I do know, that nobody has even controverted the general position which Mr. Hill has taken.

And there is one extraordinary thing about this, which I think differentiates the United States from any other country, and that is, once a great moral idea steps forth it takes the form of action quicker than in any country I know of. I believe that the transmission from thought to action is more rapid in this country than in any other that I have any knowledge of.

Those who are struggling for the realization of the conservation idea need a large

Public Opinion at Their Back,

and I believe that that public opinion will be found in the rural community much more readily than it will be found in the urban community, for this obvious reason that in the urban community the leaders are often



A HEALTH RESORT IN SWITZERLAND

Now,

I Want to Support My Friend,

Mr. Pinchot, in his policy, as far as an alien may properly intervene in these affairs. In his admirable address a few evenings ago he covered, in a masterly way, the main scope of the conservation policy. I chose my subject very largely because he was cut short in time and had not been able to say anything of the agricultural line which I represent, and I think he agrees with me in the fact that the agricultural side is by far the most important. I have watched the conservation movement, and have watched the movement of public opinion in regard to the con-

the men who are too much interested, not in conserving, but in wasting the natural resources. The man sitting at his desk in Wall Street is bound from his position to consider the shareholders and the stockholders in this generation rather than those who are to come after us.

I have been maintaining in my own country, and sometimes in this, that the civilization of the English-speaking countries has become dangerously one-sided; that is to say, that we have developed the urban side of things to the neglect of the country side of things. I believe that this condition arose in the industrial revolution which commenced in England in the last quarter of the eighteenth century. Before that time industries were mixed up with agriculture, they were scattered through the rural districts in all European countries. Then mechanical inventions of various kinds made it more eco-

(Continued on page four)

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ASHAMED TO BE SICK

A GENTLEMAN met a lady friend and inquired after her health. Her reply was, "I am ashamed to tell you that I am sick." There is much good sense in such a confession. Sickness is perhaps not a crime, but it is a very sure sign that some one has transgressed the laws of life and health. Physical sins, like moral transgressions, may be classed as wilful sins, and sins of ignorance. In the moral realm sins of ignorance may be "winked at"; but in the physical world it is written that "whatsoever a man soweth, that shall he also reap." And as consequences are unavoidable, so sickness follows physical wrongdoing, and is a convicting evidence that some one has been out of the path of rectitude, and dabbling in that which is out of character in the physical kingdom.

There are ways of escaping the responsibility, however, for the invalid, for it may be he can shift the responsibility for the wrong that has been done upon somebody else. Perhaps his wife tempted him, and he did eat; perhaps somebody opened a window upon his shelterless head, and he caught cold; perhaps it was the cook who surreptitiously introduced unwholesome elements into the food; perhaps he can go back in his history and trace his misfortunes through heredity to a former generation. But when a person is sick, some one is to blame, for health, not sickness, is the normal condition, and health calamities do not come without a cause.

But, notwithstanding these loopholes, it remains true that for the most of our illnesses we are individually responsible, either through ignorance, carelessness, accident, or wanton transgression. And to confess either cause, except in case of unavoidable accident, is enough to bring a blush to the face of any self-respecting individual. Ignorance is inexcusable, carelessness is suicidal, and wanton transgression of the laws of health is downright wicked and criminal.

It is the duty as well as the privilege of every man and woman to live on just as high a plane of physical perfection as possible. Too often illness is the consequence of un-

due gratification of some of the appetites that are not ennobling, to say the best of them. But whatever the cause of sickness may be, just so far as we are individually accountable for it, we should be ashamed of it.

YOGURT AND ITS "FRIENDLY GERMS"

MUCH prominence is given in the Sanitarium to the use of Yogurt, the antitoxic milk ferment recently made famous in both Europe and America. The use of Yogurt from the most ancient times by the Orientals, its universal use among the Bulgarians and Hungarians, the longest-lived races, and the freedom of these Yogurt-users from appendicitis, colitis, and other intestinal diseases, were the notable facts which first called the attention of European physicians to this milk ferment. First Grigoroff, and later Tissier and other savants of the Pasteur Institute, investigated the remarkable properties of Yogurt, and found it to be far superior to the ferments of kumyss, sour milk, buttermilk, etc., as a preventive and remedy for intestinal disorders.

Experiments have shown conclusively that this lactic-acid-forming ferment introduces a swarm of "friendly germs" into the intestines, and thus suppresses the growth of the poison-forming germs which find their way into the intestinal canal, chiefly through the use of impure milk and flesh foods. If used habitually, Yogurt may be relied upon to reduce to a minimum the danger from these putrefactive bacteria, and thus combats most effectually the evils of autointoxication, which lie at the foundation of most chronic maladies. Yogurt is therefore one of the chief features of the Sanitarium antitoxic dietary, and its systematic use has brought about the most striking results in innumerable cases.

Pure cultures of the Yogurt ferment are prepared for the use of Sanitarium patients by an expert bacteriologist, from cultures brought from Paris. Cultures specially imported from Bulgaria and Mesopotamia are also used as sources for fresh and energetic cultures. In addition to the milk ferment, the "friendly germs" are supplied in the form of Yogurt Cream Cheese; also in tablets, and in the form of Yogurt Whey, a by-product of the manufacture of Yogurt Cheese. By the use of these several preparations, the needs of all classes of cases may be met.

AN IRISHMAN'S THOUGHTS

(Continued from page three)

nomical to concentrate populations in industrial centers. That, of course, was the beginning of the modern system. It began in England. England, owing to her insular position, offered the only real opportunity in Europe to develop the new manufactures.

England was the only country that was safe from invasion, and you will find at that period that a very large number of those industries with which England won her commercial supremacy were brought to their successful state by the power, the capital, and the brains of foreigners who came to England simply because it offered them the opportunity which they lacked abroad.

During that period it came into the Anglo-Saxon mind that commercial and military supremacy depended upon industrial efficiency, and

Everything Was Sacrificed to Manufacture,

and then came for a short time the hideous sacrifice of the working populations of the towns. You will remember, those who have read the history of those times, the terrible suffering endured in the factories before any modern ideas of sanitation prevailed. You will remember the terrible sufferings of the little children and women in the factories, and how the good Lord Shaftesbury, as he is generally known, cried out, and how even John Bryce was so affected that he urged action against the industrial idea which had fought against Lord Shaftesbury.

Well, that period was not very long, and then we quickly come into the new social improvements, when the inhumanity of the factory system began to shake the conscience of the people and when the modern city as we know it to-day began to grow.

Through these periods, first the period of economic development followed by social advancement, and then the period of social advancement combined with industrial work, there was a total neglect of the problems of the farmer class, and a great change came over the relation of town and country.

Before the industrial revolution and for some time afterward farmers used to find a market in the nearest city. The farmer himself used to take his little consignment of goods once a week to the market and there exchange his goods for the wares which were manufactured in town, and thus there was a sort of reciprocity between town and country with a bond of mutual interest and with a corresponding mutual regard which has disappeared now. Of course, in some respects reciprocity between the town and country is just the same; there is much larger exchange between town and country now than before, but the sense of duty, the sense of the new citizenship, between town and country has entirely ceased, and the people have largely lost interest in the well-being of the farmer class. It is an extraordinary thing that this should be so, when you consider that half the people are engaged in agriculture, and forty per cent of the materials used in your manufactures come from the farmer, and seventy per cent of your exports come also from the farm.

The Consequences of Neglect of the Rural Population

are in my judgment very grave, economically, socially, and politically, and I will tell you in a very few words the reasons which make me think so. First, economically, there is an obvious interdependence between the manufacturer and the farmer. A fall in number

or lessening of the efficiency of the farming population will be accompanied by a fall in the country sale of town products. Of course in the United States internal trade is enormously more important than external. And so we have the question of the growing cost of living. I am persuaded that the growing cost of living is very largely due, much more largely due than is easily imagined, to the

Shockingly Bad Farming.

This bad farming invites the middleman in, and he controls the distribution of the farmer's produce, and thus lowers the price to the producer and increases it to the consumer. Then, of course, there is the direct dependence of all nations upon agriculture which has been very much forgotten, but which I am glad to see that the world is now beginning to wake up to. I was reading in a book a little time ago a quotation from an old Chinese philosopher who, two thousand years ago, wrote these words, which I think express this idea admirably: "The well-being of a nation is like a tree: agriculture is its root, industry and commerce are its branches and its life; if the root is injured, the leaves fall, the branches break away and the tree dies." Your Mr. James J. Hill in his address called agriculture the industry about which all others revolve, and by which the future of America will stand or fall.

Politically, I consider the development of the rural community immensely important, and I consider it thus for this reason: We are all agreed, I think, that a democracy requires for its success and great safety a higher degree of intelligence and character than most any other form of government. At the same time, mere intelligence is not enough; you want experience as well. And I maintain that

The Experience of the Townsman is Essentially Imperfect.

In the complexity of modern life he has of course the advantage of a knowledge which the countryman has not, but he is not really well informed as to the way the people live. The man who is brought up and lives all of his life in a modern city and takes part in its industry, is probably a specialist of some little tiny part of some industry, but knows absolutely nothing about how the people live; and I attribute a great deal of the political trouble of countries and the cruder forms of socialism to people seeing vast aggregations of wealth without having any knowledge of how that wealth is made. I think every community requires the experience and the conservative instincts of the rural population. I can not work this out now, but this idea was, I think, well expressed by Aristotle, of whom my father used to tell me that if I read anything by him it was all right. Aristotle said that "where husbandmen and men of small fortune predominate, government will be guided by law."

I fear I have exhausted you, but not my subject by far; I have only been able to throw out a few thoughts. I hope they will carry with them some slight suggestion of my own work; for my own life is devoted

entirely to studying the problems of the rural population. I believe that this is a neglected side, a dangerously neglected side, of our civilization. I happen to live in a country which depends absolutely upon the solution of its rural problems. This country of yours contains a great many more of my countrymen than Ireland. I am immensely interested in the affairs of this country. It has been very kind to me for about thirty years. Therefore I venture to say a few words upon the subject of conservation in its rural aspect, and I believe you will find that men more and more will come to see that we have to get back to the land, even if superior education and superior attractions are needed to induce people to live in the country; that in the interest of the cities and in the interest of the nation at large it will be necessary to make some sacrifice at the expense of the urban community to bring about a better state of things in the country life.

Mark Twain remarked in one of his books concerning the fare on an ocean steamer, that plenty of good food was furnished by the Deity and cooked by the devil. That is true of many tables besides those of the steamships.

QUESTION BOX DEPARTMENT

EACH Monday evening Dr. Kellogg convenes a parlor, where all guests and patients are at liberty to submit questions relating to health and health topics.

Q. What causes jaundice?

A. It means obstruction of the outlet of the liver. The bile ducts are obstructed, and the bile is reabsorbed.

Q. Are ants likely to convey germs to food?

A. Yes, they are. Not so likely as the fly, but still they are, because ants visit dead masses of material, offensive material, constantly.

Q. Can roaches leave germs the same as the fly, in running over food and dishes?

A. You know the roach differs from the fly; it has this thing to recommend it—it is a vegetarian. The roach is very fond of vegetable foods and does not care for meats, does not eat meats, and consequently does

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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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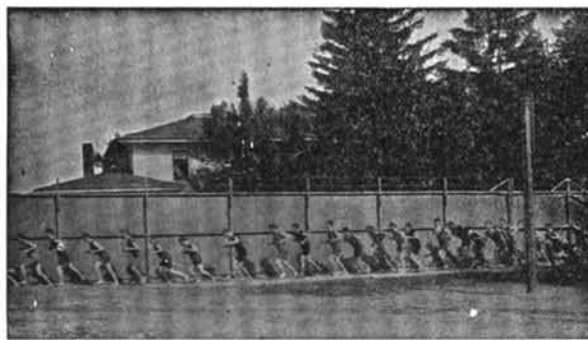
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not visit decomposing masses and masses of filth. The roach adopts a more healthful diet, so really is not positively dangerous that anybody has yet discovered. However, it is not an agreeable thing to have about.

Q. What diet and treatment would you recommend for a person who craves large quantities of water to drink?

A. Such persons should avoid eating much cane sugar, and should avoid the use of salt, and should avoid taking much protein. A carbohydrate diet without much protein and without salt is the important thing.

Q. Should one go out to walk or ride if he feels sick and weak, and more like going to bed?

A. No, the proper thing for him to do is to go out and lie on a cot, wrapped up in a blanket, in the cold air, and breathe the cold air, and pretty soon he will feel better. Then take a little walk.

Q. What is the best cure for a cold in the head?

A. Go to bed, put something hot to your feet, drink a lot of hot water, or get outdoors and stay there, live outdoors for two or three days. That is the best thing in the world to do for an acute cold. Arctic explorers never have a cold in the head. It is really fever, and infection.

Q. Is locomotor ataxia curable?

A. In the early stages of the disease it can be arrested, the staggering gait can be corrected, the patient's muscles can be re-educated so he can be able to walk well. I have seen cases in which the disease seemed to have been practically cured. The reflexes never return, but that is not essential.

Q. Why does drinking a glass of water make one sick at the stomach?

A. If he is sick at the stomach, he ought

to have his doctor examine the stomach to see what the trouble is. Several things might produce that condition. Sometimes disease of the kidneys is present when one has nausea coming on after a glass of water has been taken, without other adequate cause. The case ought to be examined.

Q. Are patent leather and enamel shoes injurious to health?

A. Air-proof shoes are not really very good. The feet are producing all the while a certain amount of moisture by the excretory activity of the perspiratory glands, and that is the reason why it is not well to wear rubbers. We ought to wear porous shoes. I am still wearing cloth shoes, and I find my feet warmer than with leather shoes. Leather is slightly porous, but not very porous; but rubber and patent leather are impervious to the air, and are really not very healthful.

Q. What is the best home treatment for a bad circulation?

A. A bad circulation generally means bad digestion. Cold hands and feet generally mean autointoxication. The poisons which are produced in the colon and absorbed, excite the vasomotor centers and cause contraction of the small arteries of the hands and feet. Now, a person suffering from this trouble generally notices that exercise does not do him any good. The increased circulation causes the absorption of more poisons, so the cold is increased. The thing to do is to get rid of the autointoxication; then this trouble with the hands and feet will disappear. It is important that the clothing should be worn in such a way as to keep the hands and feet warm. The feet should be kept warm at all hazards, even if you have to wear felt boots and double pairs of stockings; the limbs must be kept warm, because if the hands and feet are cold, there is too

much blood in the liver, too much blood in the head, too much blood in the stomach, and in all interior parts of the body.

Q. What treatment or diet would you prescribe for a dilated stomach?

A. A person with a dilated stomach suffers because the motility is diminished. The stomach has not the power to empty itself that it ought to have, and such a person should eat foods which are readily reduced to liquid in the stomach. Ask your doctor for a list of such foods. All the cereal foods, all the flaked foods, rice in all its different preparations, mashed potatoes, but not potatoes in other forms unless care is taken to chew them very thoroughly.

The important thing for such a person is to fletcherize the food very thoroughly. In some instances it seems necessary to avoid the use of raw cabbage, lettuce, and all other coarse vegetables, because it is quite impossible to reduce them to pulp without such long chewing that the matter would become unpleasant; but I find there are many who can take those foods without difficulty. They doubtless remain in the stomach for some little time, but do not undergo fermentation; they will undergo no unpleasant change; so the stomach is able to deal with them. If there is too much acid, some olive oil should be taken at each meal; fats should be eaten freely. Good butter perhaps answers nearly the same purpose.

Q. Please tell us the best means for getting more hydrochloric acid in the stomach.

A. The best thing is to live outdoors, to sleep outdoors, to take cold baths, to get just as much of nature's tonic as you can. Cold is nature's tonic. It is the greatest of all tonics. Cold applications made over the stomach; cold applications made to the spine—the general cold bath stimulates the formation of hydrochloric acid. It is a stimulus of the vital processes; it acts upon the stomach in a very favorable way. An Arctic explorer goes away up toward the north pole, and he has so much hydrochloric acid up there with that temperature seventy degrees below zero that he can eat blubber and drink oil, and it does not disturb the digestion; he does not get bilious; it does not paralyze his stomach. But the same men in the tropics with the same diet would be sick abed in two days. The difference is in the atmosphere.

Q. How is the following for three meals daily? Breakfast, boiled wheat or rice with cream, then a glass of buttermilk. Dinner, potatoes, celery, peas, beans, lettuce, egg, etc. Supper, fruits and nuts?

A. The breakfast is very good indeed, only I recommend a little fruit. You should take something uncooked at every meal, for there is some element in uncooked food which disappears in cooked food. It is not vitality, it is not calories, but it is probably enzymes or something that is really useful in the body. A person who lives on cooked food alone will get rickets in childhood and scurvy in adult age, and will get into a state of malnutrition. I do not know what the "etc." for the dinner includes. It might be deviled crabs or deviled oysters, or something else.

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Sanitarium,

Battle Creek, Mich.

For supper, the nuts will be all right if they are thoroughly masticated; but they must be masticated a good long time.

Q. What is the proper diet and treatment for autointoxication?

A. The Sanitarium bill of fare, and the Sanitarium regimen. In general the treatment of autointoxication is this: First to eat food which will not undergo putrefaction, foods which will starve out the germs. The germs that produce autointoxication are germs which produce putrefaction. The cereals are all antitoxic; rice is especially antitoxic; that is, they encourage the growth of the friendly germs and discourage the growth of unfriendly germs. Cereals may ferment and sour, but they will not putrefy, they will prevent putrefaction in the intestine. Another thing of importance is the use of antitoxic ferments. These antitoxic ferments are of very great value as an aid in getting rid of and driving out the unfriendly germs. The experiments of Tissier, Grigoroff, Escherich, Winternitz, and Metchnikoff, and all the rest have shown that this state of putrefaction can be prevented by introducing these friendly germs, and the mischievous germs can be driven out. This is accomplished by the use of Yogurt containing the bacillus of lactic acid and the bacillus bifidus. It is also essential to promote activity of the bowels, which can be done by the use of proper foods, such as malt honey or syrup, and all sweet fruits, figs, dates, raisins,—sweet fruits of all kinds are laxative. Olive oil is laxative. In many of these cases, acidity of the stomach is present, so olive oil is a very good remedy. Sal-

ads should be freely used, partly because they contain some uncooked material, and partly because they are generally served with oil, which in most cases is a good thing.

Q. Under proper diet and treatment, how long will it take to effect a cure when a person has had pain in the sciatic nerve from his hip to his foot for three years; and is exercise, especially walking, a proper thing for such a patient?

A. A long pain like that sometimes takes a long time to cure. In the case of a nerve two or three feet long, the whole nerve has to be cured. If it were just a small section, it would not be so serious, but here the whole nerve has to be reconstructed. Sometimes several months will be required, though usually much can be done in a short time. If the cause is a tumor growing and pressing on a nerve, that is not going to be relieved until the tumor is removed; but if it is ordinary sciatica, it ought to be relieved in a few weeks. This trouble is usually called neuritis. Early in my medical practice I had a patient who had a terrible pain in his shoulder that had the effect to paralyze it completely. He had treatment for two or three weeks, but it got no better. I supposed he would be a hopeless cripple. He came to see me a year afterward, swinging his arm around as vigorously as anybody could, and told me he was entirely well. What cured him? "I didn't do anything at all," he said. "I didn't do a thing. I let it alone, and it got well of itself." And I have had quite a number of experiences that show me the same thing. Traumatic neuritis, that comes from a strain, or a bruise, or some-

thing of that kind, will generally recover in the course of six months or a year. Neuritis that comes from rheumatism, or the effect of autointoxication is quite another thing, because the difficulty is continually growing and increasing and spreading throughout the body; and the autointoxication must be cured first.

ARRIVALS

THE list of arrivals at the Battle Creek Sanitarium for the week ending February 5 is as follows: Herman S. Fox, O.; A. B. Deter, Brazil; Mrs. G. Y. Relyen, Ill.; Mr. and Mrs. O. B. Potter, Buffalo; Mr. J. W. Bigelow, W. Va.; R. B. McPherson, Mich.; F. W. Guff and wife, O.; Mrs. I. J. Biskind, Cleveland; Mrs. I. Wolf, New York City; Mrs. H. L. Blossom, Cleveland; Mrs. S. W. Baum, Ill.; Mr. and Mrs. A. E. Jones, Miss.; Robt. Alexander, Ont.; Amos Pinchot, New York City; H. T. Bardwell, Chicago; H. L. Bonaquet, Ia.; G. N. Andrew, Ont.; C. H. Helland and John Zeherle, Wis.; O. M. Husted, Ark.; A. Risser, O.; Rev. A. H. Smith, China; Dr. E. A. McManus and family, Mich.; A. C. Abadie, New York City; Eva Varier and Olive Sibley, Ind.; Helen A. Kennedy, Ill.; Amy Salamon, Colo.; Geo. W. Tarr and family, Chicago; Dr. J. J. McKanna and wife, N. C.; C. J. Sherman, Ind.; Mrs. G. E. McNamara, Mrs. Saumel Hunt and P. W. Hunt, Cincinnati; Mrs. J. Russell, Wis.; Mrs. Jno. Bennett, Mich.; J. T. Tully, R. I.; Mrs. H. Greenberg, A. Greenberg and B. Salamon, Mich.; Jno. S. Henry, Jr., O.; C. T. Moore, Mich.; Emily

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News and Personals

Rev. J. F. Tully, a well-known priest and rector of Rhode Island, is making his first visit to the Sanitarium.

Mrs. Lucy Russell, of Park Falls, Wis., has just returned on her fourth visit to the Sanitarium for a period of rest and treatment.

Miss Amy Salamon, the probation officer of Judge Lindsay's Juvenile Court, in Denver, Colo., is at the Sanitarium for a period of rest and recuperation.

Prof. M. V. O'Shea, of the University of Wisconsin, is, with his son, visiting the Sanitarium again. Professor O'Shea is an ardent friend of the institution.

Dr. J. B. Morten, of Ridge Farm, Ill., made a brief visit to the Sanitarium last week, bringing with him Miss Clare Besse, who remained for a course of treatment.

Mr. H. B. Hastings, a well-known publisher of Boston, and son of the Rev. H. L. Hastings, the noted anti-infidel writer, is enjoying a period of rest at the Sanitarium.

Mr. S. L. Bowser, a prominent builder of Philadelphia, has returned for a course of treatment at the Sanitarium. Also Dr. Herbert C. Jones, a well-known physician of Decatur, Ill.

Dr. Wm. W. Hastings, Dean of the Normal School of Physical Education, has returned from New York City, where he attended the Congress of the American School Hygiene Association.

Dr. M. A. Mortensen is visiting various hospitals in Europe, and is to sail for home about the middle of this month. So that we are looking forward to his early return and the resumption of his work.

Dr. I. J. Biskind, of Cleveland, is a warm friend of the Sanitarium and frequently sends patients here for treatment. Mrs. Biskind and her sister, Mrs. Wolf of New York City, are now here for a course of treatment.

Miss Lenna F. Cooper has returned from College View, Neb., where she was called by the serious illness of her brother, a student there, who was suffering from pneumonia. We rejoice with Miss Cooper that her brother is making a good recovery.

Mrs. Elizabeth Stillwell, of Quincy, Ill., a guest of the Sanitarium, has returned home to arrange her affairs for an extended visit at the Sanitarium. She is very enthusiastic over the methods of treatment and the principles inculcated by the Sanitarium.

Miss Ella Thompson has just returned from Milwaukee, where she has been lecturing before the women's clubs and hospitals upon the Battle Creek ideas and principles. She reports great interest and much enthusiasm among her audiences.

Other arrivals are Dr. J. J. McKanna, of Oklahoma City; Rev. A. B. Deter, of Rochester, N. Y., a missionary to South America under the Southern Baptist Convention; Mr. Amos Pinchot, of New York City, brother of Hon. Gifford Pinchot; Mr. L. W. Eoff, of Findlay, O., cashier of the American National Bank.

After a stay of nearly two months with us, Rev. W. A. Mansell, D. D., president of the Theological Seminary in Bareilly, India, has left us to resume work in the Layman's Missionary campaign. During this time the Doctor's health has been looked after, and he has assisted in the religious work of the institution. On last Sabbath he delivered a very instructive and touching sermon preparatory to the communion service.

A goodly assembly met in the parlor on Sabbath afternoon to listen to Dr. Sharon J. Thoms, who gave a very interesting lecture on medical missionary work in Eastern Arabia. The customs of the people, the hardships of Moslem domination, and the conditions under which the poor of that country live, were very clearly pointed out. Not a week passes but the Sanitarium family has the privilege of listening to the portrayal of scenes and circumstances in distant parts of the earth by those who understand them by long experience.

We are painfully shocked to learn of the death of Dr. Chas. C. Nicola, which occurred on the home journey from the Bermudas, where he had been for a few weeks' benefit healthwise. It is supposed he fell overboard, as no trace of him could be found after he had risen on the last morning of the trip and appeared on deck in usual health and spirits. Doctor Nicola was in charge of the Sanitarium at Attleboro, Mass. Mrs. Dr. Nicola, his wife and associate physician, has our deep sympathy in the double blow under which she is suffering, the death of her brother, Doctor Byington, and her husband.

The Christian Endeavor meeting on Friday, January 27, was in charge of Mr. Charney, the subject being "Missions in the United States." Several of the Endeavorers took active part in the meeting. On Friday evening, February 3, the meeting was led by Mr. Manley Capron, the subject being "The Christian Endeavor Movement," which was peculiarly appropriate, owing to the fact that the Christian Endeavor movement has just celebrated in Boston its thirtieth birthday. During these years the movement has grown from one society with sixty-eight members to 74,000 societies with a membership of nearly 4,000,000. The subject for next Friday evening is "Joseph," being the second in the Series of Great Lives.

On Tuesday evening Madame Mountford gave the first half of her famous Chautauqua lecture on "The Shepherd's Psalm" in the chapel, the second half of the lecture being given in the parlor on Wednesday afternoon. Her audiences were greatly interested and most enthusiastic over her illuminating interpretation of the twenty-third Psalm. Madame Mountford wore the shepherdess's garments, and showed a shepherd's rod and staff, scrip, sling and stones, such as were used in the time of David, and other objects which form a part of the equipment of a shepherd in Palestine. On Sunday morning she spoke to the nurses in the bath-room on "The Lost Piece of Silver."

Among the recent arrivals at the Sanitarium is Rev. A. H. Smith, D. D., of China, who is here for a short period of rest. Doctor Smith went to China in 1872 under appointment by the American Board of Commissioners for Foreign Missions, and during these thirty-nine years has done invaluable service as missionary, author, and lecturer. He was shut up in the siege of Peking from June to August of 1900, and has been missionary at large of the A. B. C. F. M. since 1906. Among some of his writings are: "Proverbs and Common Sayings of Chinese," "Chinese Characteristics," "Village Life in China," "China in Convulsions," "Rex Christus." His latest works are, "China and America of To-day," published by Revell, and largely used in the library of the Laymen's Missionary Movement, and "The Uplift of China," published by the Young People's Missionary Movement. Doctor Smith was one of the two delegates appointed from China to the World's Missionary Conference at Edinburgh. He was also elected first Assistant Moderator at the National Council of Congregational Churches.

THE BATTLE CREEK IDEA

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FOODS-THEIR COMPOSITION AND FUNCTIONS

Dr. W. H. Riley Discusses the Question of Foods on the General Principles of Material and Energy

This is a subject which most people who come to the Sanitarium are particularly in-

HEATING AND VENTILATING THE SANITARIUM

How the Immense Place is Kept Warm in Winter—A Model Heating Plant for Efficiency and Economy

THE problem of heating and ventilating an institution of the size of the Battle Creek

The Battle Creek Idea

Stands for the Simple Life; for Out-of-Doors; for Simplicity in Dress and Diet—Lecture by Dr. J. H. Kellogg

If you had been at Battle Creek just forty-four years ago now, you would have seen this



A GROUP OF MISSIONARIES NOW AT THE SANITARIUM

terested in, and one in which I think every one should be interested. The farmer pays a good deal of attention to the feeding of his stock. It is the only way he can get good results. But the human family pays very little attention to its food as compared with the attention paid to the food of the lower animals. There is not nearly as much attention given to the development of healthy hu-

(Continued on page five)

Sanitarium is no small one, and its solution was not reached in a single stroke, for the establishment itself is a growth, and its various features have had to grow along with the work in general.

The Sanitarium is not one building, but a group of buildings situated on several acres of ground and separated by at least three streets. The larger number of these build-

(Continued on page three)

institution as it appears in the picture which accompanies this article. It was opened as a water cure. On the day of the opening there were two doctors and one patient; there were no nurses, no skilled treatment attendants; everything had to be learned. There was really at that time no system. There was simply water and diet, and the diet consisted of the things people were accustomed to eat, minus all the things they

liked pretty well, leaving out beefsteak, spices and condiments, butter, pastry, and all the other things the people called for.

What Was Left Was the Bill of Fare.

Oatmeal was new in those days, and graham bread, and graham flour cakes stirred up with water only, were largely used. Those cakes were called "gems"; I suppose because it was pretty hard to break them, and some thought they ought to be called diamonds instead. The dietary, of course, was very meager, and the patients sometimes fancied they did not get enough to eat in those days. But in spite of that, people recovered and the patronage grew so that the building had to be enlarged, and in 1876 it fell to my lot to take charge of the institution. That was thirty-four years ago, and the next year we put up a large building containing about one hundred and thirty rooms, and the building was filled up as fast as the rooms were finished; so that when it was dedicated, the year after we began to build it, it was entirely filled from top to bottom. And from that day to the present time there has never been a day when we could get all our pa-

charge, we tried to put the work on a sound scientific basis, and to do things in a more thoroughgoing way. The world gradually came to recognize this, and the work has rapidly multiplied. At the time I took charge of the place thirty-four years ago, there were just twelve patients. It had been going ten years, but had been going backward for some years, and had run down to twelve patients; and last summer I think we had at one time about one thousand patients all told; so there has been quite an increase, because the principles, the idea, has been growing in the world.

The success that has attended this cause is

Not Because of Any Marvelous Skill,

or any wonderful genius that has been employed, for all the growth has been in spite of our mistakes and blunders; but the undertaking has succeeded because the principles are right, everlastingly right, and the world is coming to recognize them more and more.

I received a letter the other day that pleased me very much. Several years ago a lady came from the South, bringing her

only son, a bright little boy, who was a mere skeleton. In the course of half an hour after eating he was in great pain. I went up to see the little fellow, and found him in bed with his legs crossed behind his head. He found it relieved his pain somewhat to draw his knees up, and that was the only way in which he could get any comfort. He was a puny little fellow; his weight was fifty pounds. It was necessary for him to have a serious operation, and I shall never forget how bravely this little boy went up to the operating room with a smile on his face. I am glad to say, from the time of the operation he had no more pain.

This was three years ago; and he sent the other day a report of himself, and these are his present figures: height, seventy inches; chest measurement, thirty-six inches instead of twenty-six; chest expansion, seven inches instead of four; waist measurement, thirty-four inches instead of twenty-five; and weight 145 pounds, almost three times his weight when he was operated upon.

This is What He Wrote Me:

"I am improving every day. I think my report is quite enough to sustain my place as a star patient. My highest record in gain of flesh was seven pounds in one week last winter. If you have any one who has decided to have the operation I had, show them this. Maybe they will take cheer and take away my title. Yours truly, Kenneth McLain." You can see he means business. He went home, and he has been living right up to the Battle Creek Idea since. We shall hear from him by and by.

How careless we are in this matter of life and living! How we squander the splendid health we inherit, throw it away and care nothing about it until it is gone, and then, when it is gone, we would give anything we

have, and all our friends have got, in order to get back the thing we have absolutely thrown away. The man who has health at the outset can keep it if he will. It is simply a matter of self-control, of intelligent obedience to the laws of our being that are just as immutable as the law of gravitation; and we must give attention to them; for if we do not they will execute judgment upon us for transgression.

I recently told a man I feared he was going to have Bright's disease one of these days. He had a badly coated tongue, and when I called his attention to the fact he said, "Why, I have had that for twenty years. I never have any appetite, but I go right on; you don't mean to say that is anything serious?" Now, that man is bound to have a premature death just as certainly as the sun is shining; it absolutely can not be any other way, because his body is saturated with poisons. He does not feel any very great inconvenience just at the present time, and because he does not, he imagines nothing is going wrong, and he is going to get along in that way forever. But all this time mischief is going on like a slow fire burning in the walls of the house that will break out through the roof by and by, the walls will fall in, and the poor fellow will have to attend a funeral whether he wants to or not. The laws of our being are absolutely immutable; they can not be dodged any way.

Too Far from the Simple Life

It is coming to be seen more and more by intelligent physicians and people who give thought to the causes of things, that we have gone too far away from the simple, natural life; that we are suffering so many penalties from our artificial life, that we must turn about, repent of our evil ways, and come back to the simple life so far as we can.

Twenty years ago we thought tuberculosis was a hopeless, incurable disease. Now we do not think anything of the sort. If a person gets tuberculosis, we say, "Go outdoors and get well." Twenty-five years ago I used to say to patients with tuberculosis, "Well, you will have to get a mile higher, and stay there as long as you live." We do not tell them that any more. We thought that a place a mile high out in Colorado, or in the West or the Southwest, was a pretty good place for people with tuberculosis, but it was only because the conditions were favorable for living outdoors. It was not really because the air was any better.

The fact has been fully developed that it is the outdoor life, the fresh pure air, as pure as you can get, especially cold air, that heals; and since this idea has been understood, the doctors are sending their patients to take the cold air treatment, and the outdoor life on the tops of their own houses; and even in smoky New York, where they have to breathe soot all the time, people are getting well.

One man who worked in a watch factory where his occupation was very close and confining, slept outdoors, got well of tuberculosis and kept right on with his work. Another man, a printer, kept right on with his work and got well of tuberculosis. A doctor down in New York told me a while ago that a woman teacher came to him who had tuber-



BATTLE CREEK SANITARIUM, 1868

tients into our main building. At the present time the institution owns thirty-one buildings besides this main building.

I am not speaking of this in a boasting way, but to show you how an idea has grown. Starting with this little building forty-four years ago, you see the development that has been made; and now the institution has a reputation throughout the world.

Health a Cultivation

The principle upon which this institution stands is that health is a thing of cultivation; if we have lost it, we must win it back again in the same way we got disease. People are never sick unless they cultivate sickness. We eat for sickness; we sleep for sickness; we work for sickness; we do everything we do for sickness—not intentionally, but recklessly, thoughtlessly; the things we have been doing are the very things to make us ill.

This institution started as a protest against prevalent customs, methods, and habits, back there forty-four years ago. Those who originated it had but very little capital, and almost no prestige, and there was very little knowledge, and very little skill, but there was a beginning made, and the principle was right, and in spite of all obstacles it has been traveling right along. When I took

culosis, and he told her to establish a peanut stand on a particular corner where the wind was very fresh and swept around with a good deal of force; and that woman established a stand and sold peanuts on that corner for three years, and got entirely well. She simply went outdoors at home, and that answered the purpose perfectly well.

It is Very Important

that these thoughts should be brought to our minds at this particular season of the year when we are so likely to think, "Well, it is very cold now, and we must stay indoors"; and we are so likely to coddle ourselves, and the more we coddle ourselves, the more we have to. I remember going into a room some years ago and finding an old gentleman shivering over the stove there, complaining about the awfully cold weather, and the temperature of the room was at eighty degrees. If it had been eighty degrees on a hot summer day, he would have been complaining of what a terribly hot day it was. He had coddled himself until his body had ceased to make heat and was not making enough to keep him warm in a room at eighty degrees.

The nearer we can get to Nature the better, not only in going outdoors and breathing the outdoor air which belongs to us, but in diet as well, for we are naturally outdoor animals.

What are generally regarded as

The Comforts of Civilization

have done much to undermine our health and vitality. Our success in excluding the fresh air from our homes, in shutting ourselves away from the sunlight, is reducing our vitality to the low condition where we easily become victims to colds, pneumonia, influenza, and tuberculosis. Our modes of dress are in many respects unwholesome and debilitating; while in matters of diet our tables are loaded with edibles that minister to taste and perverted appetite, while they serve to draw us into the net of disease.

Our forefathers did not know as much as we do about sanitation and architecture, and esthetics; they were old fogies as compared to our up-to-date ways and manners and rushing life; their houses were very poor compared to ours, their tables were scantily furnished with the plainest of foods, and that not of the best quality or character; they ate food that would shortly kill off many of us; and yet they were hardy and strong, because the cracks and crevices under the eaves of their houses and around their doors and windows and chimneys admitted the fresh air to their dwellings, and in their sleeping chambers the outside storm could pile snowdrifts across their beds.

They worked outdoors, walked or rode horseback, instead of lazily lolling in Pullman cars or automobiles on the softest of springs and cushions. Had they possessed the knowledge of healthful living in respect to diet, the men and women who subdued this wild country would have been people of renown, living long and powerful lives. Could we with our advanced science go back to simpler ways, to more natural methods of living, we should see great advancement in health and efficiency.

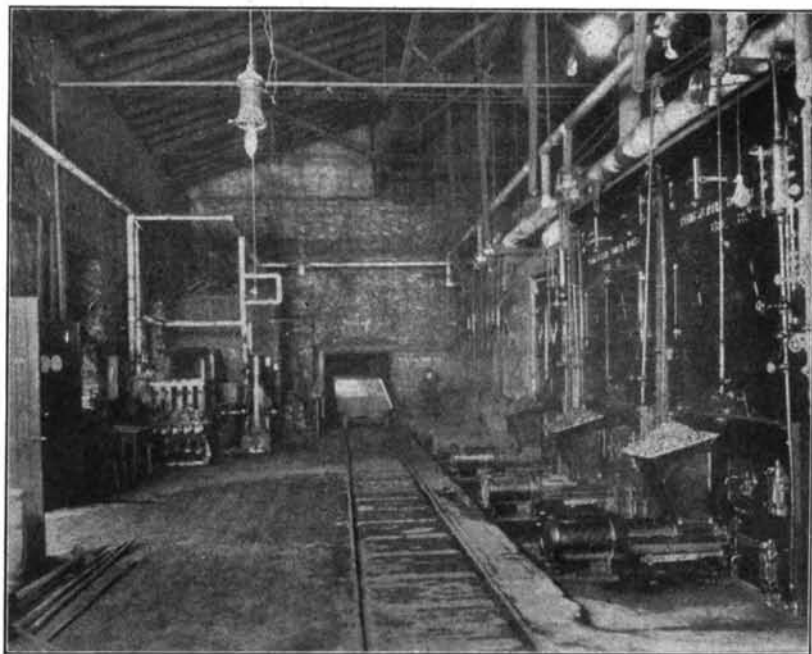
HEATING AND VENTILATING

(Continued from page one)

ings consist of cottages used only in the summer, for which no permanent system of heating more than light stoves or open grates needs to be provided. But the bulk of the institution is composed of one large main building and half a dozen smaller main buildings. These are not on the same block of land, but are separated at comfortable distances from each other. As they were built, one at a time, each was provided with its own heating apparatus, and quite a number of furnaces were employed. But as they came under one management the poor economy of this method was very apparent, and so gradually they were all connected with one central heating plant which now supplies heat for all the buildings that are called into use during the winter season.

These buildings consist of the Main Building, East Hall, the College, West Hall, South

made easy and natural. There are six boilers having a total capacity of 750 horsepower. These are fed by a patent underfeed stoker that works automatically, the fireman having only to keep the hoppers filled with coal, while the machine of its own accord feeds the furnaces at a steady rate by crowding the fuel into the bottom of the furnace, from which it works up toward the top of the fire. There is never any fresh coal on the fire, and consequently no clouds of black smoke ever pour from the stack. Being forced into the bottom of the furnace, the gases arising are consumed in the intense fires through which they must escape. Consequently there is but a very small volume of smoke in evidence, and no cinders are descending upon the adjacent buildings and grounds. This is a benefit of almost inestimable value, especially to such an institution where the acrid smoke of burning coal would work harm, and be a source of constant annoyance. As it is, not the least



THE BOILER ROOM

Hall, the Storehouse, the Laundry, and five or six cottages. They contain an estimated area of 345,000 square feet, or about eight acres, of floor space. They must be kept warm night and day. The heating agent employed is steam, generated by six boilers in a boiler house situated in the rear of the main building and one hundred yards distant; and distant from West Hall three times as far. A system of tunnels of sufficient size for passage connect all the main buildings, conveying steam-, water- and gas-pipes, and electric wires, so that they can all be easily inspected and repaired.

The Boiler Room

This is situated at sufficient distance from any of the buildings to be no source of annoyance in any way. The boilers are located on a side-hill below the other buildings, so that the return of the condensed steam is

annoyance is ever occasioned by the smoke of our furnaces.

Forced Draft

The draft to the furnaces is forced or mechanical only, and so is automatically controlled by a steam valve, which, as the pressure declines, opens up, causing the blower to revolve more rapidly. The record of the steam pressure is kept in the engineer's office by a dial that revolves once in twenty-four hours, and seldom shows a variation of more than four or five pounds in the steam pressure during the entire period. This system of firing is very satisfactory and effects a large saving in labor and fuel. A visit to the power house is well worth while, and the courteous engineers and firemen willingly give information to visitors. The amount of coal consumed, of course varies with the temperature. It is seldom necessary to employ

(Continued on page four)

The Battle Creek Idea

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GUARD THE CITADEL

THE inspired Book admonishes us to "Keep thy heart with all diligence; for out of it are the issues of life." Moral defects have their origin in an unguarded heart. And so in physical matters disease is an intruder that forces its way into the very citadel of our strength and life; and when once it is established there the task of getting it out is always painful and difficult, and often impossible. A far better way, then, is to keep it out.

We often hear people say, "I can eat anything; I could digest an old shoe." Or, "I never know that I have a stomach." Or perhaps, "I very seldom have a cold." There are some who can boast of immunity from sickness; they say, "I was never ill a day in my life."

Those who can speak in this way are peculiarly happy. They have an inestimable blessing which, however, but few appreciate or are willing to preserve, even. As stated by Doctor Kellogg in the lecture reported this week, and tersely put in the little poem by one of the Sanitarium patients, we never prize the treasure of good health adequately until it is gone, and then we look back with vain regrets to see how foolishly we threw it away when it was ours. What is all the wealth in the world worth without health? What use have we for pleasure and fashion and show after we are stricken with some dread disease? What good do all the dainties of the epicure do us when we can no longer eat? What is social or political position good for when we have sacrificed health in obtaining it?

Better the humble home of the poor with health and vigor than the palace of the king with pain and suffering. Better to have to labor and dig for a living and have the health and strength to do it, than to pine on beds of idleness with wan cheeks and failing strength. Health is the very greatest of earthly good; it is the primary blessing of life. It is the basis of success in any career; it is a necessary consideration in any life that is at all complete.

All will admit the truth of these things,

and yet we see men and women burning out the little candle of life at both ends. Men who have good stomachs are not satisfied to have them good; they are looking for something that will make them cringe and howl so that they too may know that they have a stomach. People who have never been ill almost seem to envy those who are, and I have actually heard such people say they wished they might be sick so as to know how it felt, or so that they might have a chance to "get a little rest."

Self-indulgence clamors for indulgence, and people take the risk and go farther and farther away from the simple life and plain living until at last they find that the enemy is in the citadel, the stronghold is taken, the defenses are broken down, and if they get back to their original position of health and vigor they must radically reform and get back into right ways, and must do right hard work at repentance and penance to pay their debts to the laws of life.

QUESTION BOX DEPARTMENT

EACH Monday evening Dr. Kellogg confers in a parlor, where all guests and patients are at liberty to submit questions relating to health and health topics.

Q. How do we get out of breath? and how can we avoid it?

A. We get out of breath because of the accumulation of carbonic acid gas in the blood. That is what it means; and the way to avoid getting out of breath is to avoid too violent exercise, or to cultivate the breathing activity so that you can breathe fast enough and deep enough to keep the supply of air good even though exercising.

Q. What causes the tongue to be badly coated upon arising in the morning?

A. The absorption of poisons. The poisons contaminate the blood and the blood loses its power to destroy the germs which are taken in from the air, and they are permitted to grow and thrive in the mouth. The healthy saliva prevents the growth of germs, but when one's blood is poisoned by toxins formed in the intestine, then the saliva has not the power to kill off germs, so they grow in the mouth just as mold grows on the wall.

Q. To the many appliances at this institution for administering the various treatments I would like to add one more, and that is a vacuum machine for putting the arms, legs or trunk of the body in a vacuum, and so filling the exterior with blood.

A. That is not a new thing in this institution. We formerly had apparatus of that sort and used it for years; but I was never able to discover any benefit from that sort of treatment that could not be better obtained from the application of heat, such as

fomentations; and there was sometimes evil resulting from it. It sometimes created distension of the blood-vessels of the skin, and led to the breaking of those blood-vessels, especially in elderly persons. The application of heat dilates the blood-vessels in a physiologic way, while the vacuum treatment is a mechanical method that does not seem to work in harmony with physiologic laws. It is a violent mechanical means which I think has no essential virtue.

THE LOST TREASURE

BY LUCINDA EVANS

And day by day I look and look
For my lost treasure rare—
I did not know its price was great,
And gave it little care.

But now it's gone, alas, alas,
How paltry all else seems!
Could I but get my good health back
'T would be the height of dreams.

Why need one lose to rightly prize?
We have our eyes and ears
To note the sick on every hand,
Who mourn long wasted years.

No doubt 'tis true, that now and then,
Some thief is never caught;
But Nature is more just than law,
And risks are dearly bought.

Is there some way the truth to put
So youth shall understand,
And save themselves such weary search
For what they're now in hand?

Then herald far the health crusade!
Let's keep the others well!
We'll study not the doctor's art,
But what to think and tell,

And how to dress, and eat, and sleep,
And how to work and play,
And hope we may attractive make
Right living every day.

HEATING AND VENTILATING

(Continued from page three)

more than four of the boilers at any time, though under the old system eight boilers were none too many. At present, from one ton to one and a half tons of coal are consumed each hour. The steam is used not only for heating but for power purposes as well. The dynamos of the lighting plant and the motors and engines of the carpenter's shop, the laundry, and the various mechanical departments, as well as those of the treatment rooms and kitchens and the large pumps of the elevators, are driven by steam furnished there. Over 60,000 gallons of water is heated daily.

The exhaust steam is utilized in heating water for the bathrooms and for warming the large greenhouses, and the condensed steam is returned to the boilers after being reheated in the boiler rooms.

The Ventilation

The ventilation of these buildings has required scarcely less study than the matter of heating. In them live and labor a very large number of men and women, many of whom are ill and require the most careful attention in every respect. In the main buildings a large volume of free fresh air is being taken in constantly and warmed before it is sent

into the rooms and corridors. The ventilation of these buildings does not depend upon the caprice of the occupants, but is constantly going on without their knowledge or co-operation. It is not effected by opening windows, for, independent of this, the air in every room is being constantly changed and renewed by fresh air from without, warmed as it is taken in and passed along by fans through ducts to the corridors and rooms; and is as rapidly taken out and discharged through large ducts at the roofs of the buildings.

Of course this requires extra heat to that required where the same air is used over and over, but is well worth the cost in the fresh and sweet air that is brought to the guests. In addition to the ventilation thus provided it is quite the practice of the Sanitarium

understand some of the fundamental principles with reference to food, we shall be better able to select our foods, and to understand more intelligently the foods that are best suited to particular conditions of the body.

So, at the outset I want to give you

A Definition of Food.

A food is any substance that contains material and energy that the body can utilize. Or, we may say that a food is any substance that contains material that is used in the body for the growth of, or for the repair of, tissue, or for furnishing energy to the body. And I wish to emphasize this fact, that food contains two things that are useful to the body, one of which is material and the other is energy. I hope you will keep that in mind as

we are discussing this subject; these are the only things there are in a food substance that the body utilizes. There are other useful qualities that belong to good food, such as taste, appearance, savor, etc., because a food should be attractive and palatable; but these are subordinate qualities rather than essential elements.

A material substance in order to be a food must be of a peculiar kind. For instance, I have here on the table a piece of coal, and I have here a piece of bread. They are both material, and both contain a large proportion of energy. One is a food, and the other is not a food. And one reason at least why this piece of coal is not a food is because the material in it is not put up in the right way for a food; whereas the material in this piece of bread is composed in such a way that the body can use it. That is the principal reason why the body can not use the material in the coal, and the body can make use of the material in the bread. Now, if we analyze these two substances, we find that the coal is made up largely of carbon, and we find in the bread quite a large amount of carbon, but not so much as there is in the coal. They both contain carbon, but the carbon in the bread is put in in a different way from that in the coal. So, you see, it is the construction, the arrangement, of the material in this bread that makes it a food. Of course, there are chemical elements in each that are not in the other, and yet we have carbon in the bread the same as in the coal.

With Reference to Energy

The same thing is true with reference to energy. There is lots of energy in the world that the body can not utilize. Sunlight is a very essential element to health and life, it is true, but the body does not absorb the energy that is in the sunlight directly. That property belongs to plants. Plants have the ability to absorb and store up the energy, but animals can not do that. So the animal



THE SANITARIUM VEGETABLE GREENHOUSE IN FEBRUARY

family to sleep with windows thrown wide open; then with plenty of covering, sound and natural sleep comes with refreshing power that one never experiences when sleeping in a close room.

FOODS—THEIR COMPOSITION

(Continued from page one)

man subjects as there is to the development of healthy horses, sheep, and other domestic animals.

It is Highly Proper

for us to give some attention to this subject, and here at the Sanitarium our work is educational; we endeavor to teach people how to live healthfully so that they will keep well after they have left us. Most people who are at all interested in the subject of foods are particularly interested in this subject, as it relates to the particular foods that they should use.

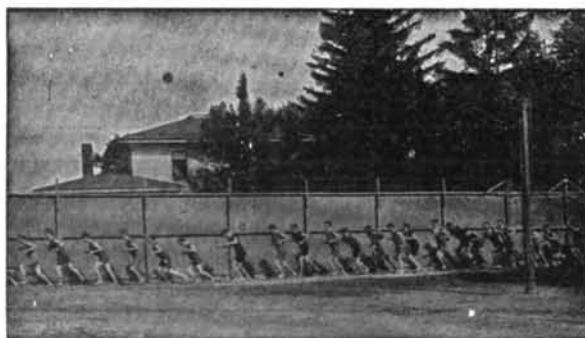
That, of course, is very important, and it is primarily proper to study the matter in this way. But to-night I am not going to deal with that side of the subject. I am going, rather, to deal with what I consider some fundamental principles. And if we

Normal School of Physical Education

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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, \$40. Board \$3.00 to \$3.50 per week.

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can not make use of the sunlight as such directly. But as the sunlight passes through a plant the plant will store the sunlight up in it and make substances such as we have in a food, and thus the body can take that sunlight and use it.

Sunlight acts upon the animal as a normal, physiological stimulant. As such it is very essential. We can not live without sunlight for any great length of time, but that energy is not absorbed by the animal any more than the energy that a man uses in whipping his horses is absorbed by the horses. The whipping simply is used to get more energy out of the horses. And that is the way that sunlight acts upon our bodies—as a stimulant, acting through the nerves, the skin, and different parts of our bodies, stimulating the machinery of the body; but that energy is not absorbed by the body in any way. And it is the same with a great many other forms of energy—electrical and mechanical energy of various sorts—the body can not take them into itself and use them as such. Those energies may be utilized in some other way by the body. The only way that energy gets into the body is by taking food. It comes from the food that we eat.

How Food Material is Utilized

The material that is in the food is used in the body in many different ways. The young growing child uses the material for building bone and muscle and blood and brain. After a man gets his growth, he does not need food in that sort of a way, because he has reached his growth. But he does need food to repair the waste. This body of ours is a sort of machine. And I speak very respectfully when I speak of the body, because there is nothing in the world that is entitled to more respect than the human body. But yet we may properly compare our body to a machine. Put energy into the machine, and the energy comes out in some other form. Put energy into a dynamo, and it comes out in the form of electricity. We put energy into our bodies, and it may come out in many different forms.

As we go about our duties through the day, our body is wearing out. There is a wear and tear every day, and that wear must be repaired; and food contains certain materials that will build up that which is worn out. The amount of food necessary to repair the waste of an adult is not so great as the amount required to build the muscle, the

brain, and the blood during the growing process, so that the child while growing requires more of certain food elements during this period than he does later in life when he is not growing.

The Energy of the Body

The energy we take into our bodies in the food is used in a great many different ways. A large portion of it is used in keeping the body warm. The temperature of the body is the same in the winter as in the summer; though the temperature of the atmosphere is very much lower in the winter than in the summer, yet the body temperature remains the same. I think you can all readily understand that when the temperature may be twenty degrees at one time, and another time perhaps eighty degrees and the body temperature remains the same, more heat must be made when the temperature is lower in order to maintain the body temperature than at another time when the atmosphere is warmer. And the body adjusts itself to conditions; more heat is made in the body in the winter than in the summer.

A large part of the energy that comes from food is used for furnishing heat to the body. There are some people who have lost to a great extent the ability to make heat. We are not apt to think of our bodies as heat-producing machines. We think about our stomach, our liver, our heart, and nerves, but our attention is seldom directed to the function of heat producing. When our feet or our hands get cold, we attribute that to poor circulation; and that may be partly the cause, but very often another cause is the fact that the heat-producing function of the body is running at a low speed. I have seen many people in my experience in that case.

Heat is Produced

by chemical changes going on in the body. There are some people in whom those chemical changes act slowly, and consequently all the other functions of the body are interfered with and act in about the same way, because those chemical changes, which are the basis of all the other functions of the body, do not go on promptly. So I want to emphasize that the heat-producing function of the body is a very important one.

One of the best things in the world to stimulate the heat-producing function of the body is the use of cold, short baths, or going out in the cold air will do the same thing. You take a short cold bath in the morning, and when the cold water is applied to the body a certain amount of heat is abstracted and carried off from the body by the cold water, and then the body gets to work immediately and makes more heat, and thus the heat-producing function is stimulated and more heat is made in the body. People whose heat-producing power is reduced take cold easily. A strong, healthy young man does not take cold as a rule, unless he is exposed very severely.

Another very good preventive against taking cold is out-of-door exercise. A great many people in the North go South in order to get rid of the cold winters. I am certain a great many people make a mistake in doing that. There may be some who are very feeble and whose resistance is very low, for

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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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Sanitarium, - - - Battle Creek, Mich.

whom it may be proper to get away from the cold air of the North; but generally I am afraid it is a mistake, because one of the best tonics in the world is the cold air, such as we have out of doors in winter. Cold air acts on the body the same as cold water. It is not the water that is of any value; it is the heat and the cold in the water. Water is simply a medium in conveying the heat and cold; and it is the heat and the cold that do the good. If one takes a cold bath or exposes himself to cold air too long, instead of its being a tonic it will act as a depressant. The only reason why it acts as a tonic is because it arouses the latent forces in the body.

(To be continued)

ARRIVALS

THE guests who have registered at the Battle Creek Sanitarium for the week ending February 12 are as follows: John M. Jacobs, O.; Seward L. Bowser, Philadelphia; Dr. C. B. Marks and wife, Mich.; A. F. Crane and J. A. Menge, New Orleans; Miss O. Baker, Mich.; Fred H. Clarke and wife, Detroit; H. W. Phelps, Pa.; Harry Messer, Ill.; R. L. Melton, Mo.; Mrs. W. H. McGinnis, Kans.; Miss M. A. Struble, Mo.; P. B. Pruden, Minn.; Gordon C. Adams, Chicago; Georgia L. Ely, Mich.; Frank H. Wagner, O.; Mrs. M. E. Pearce, Minn.; Dr. S. de Nix, La.; C. V. Brainard, Mo.; P. C. Corland, Toledo; Mrs. G. G. Milliken and Mr. B. F. Parrett, Ind.; David O. Black, R. I.; John G. Schober and wife, Pa.; A. R. Teachout, Cleveland; Jessie Lee Elk, O.; J. H. Struble,

Miss.; J. R. Matthews and J. C. Reid, Mo.; A. H. Messer, Ill.; C. F. Hellgren, Chicago; Edw. J. King and wife, Mich.; C. E. Speed, Harry E. Kelley and Geo. S. Kerr, Ark.; A. L. McDonald, O.; W. T. Edwards, Ind.; Mrs. M. J. Rodney, Man.; G. Whitfield Richards and wife, Philadelphia; M. A. Singer, New York City; Duncan C. Dusenbury and E. T. Dusenbury, N. Y.; G. R. Smith and wife, O.; Rev. T. S. Zaugg, Omaha; Miss J. A. Dorne, Mich.; Margaret S. Pugh, Kansas City; B. Raesing, Chicago; C. Frederickson, Ia.; Lewis Wert, Ind.; F. M. Barnhart, O.; Christian Mack and Walter C. Mack, Mich.; Thos. F. Carter, Pittsburg; L. Silver and wife, Detroit; R. A. Wright, Mich.; Miss H. Smith, Mich.; Sam'l Kidder, Mich.; Mrs. M. R. Campbell and T. C. Campbell, Tenn.; R. R. Schultze, Ill.; Mrs. E. N. Harris, Burma; Marriette E. Harris, Ill.; Mrs. G. I. Goodman and Miss Esther Goodman, Kalamazoo; Clyde A. Fiddick, Ill.; H. W. Wenninghoff, Mexico; R. W. McLellan, Canada; F. M. Husband and Mrs. Husband, Pa.; W. D. Lummer, Toronto; W. G. Harriseh, Chicago; T. S. Glover, New York City; Mrs. Walter Mack, Mich.; J. C. Crownover, Pa.; Graham Lee, Ia.; Laura A. Taylor, Minneapolis; C. N. Robinson, Conn.; A. J. Prior, O.; Dr. and Mrs. H. R. Harrower and A. C. Johnston, Chicago; Thos. Common, Pa.; H. B. Sames, New York City; R. L. Harrington, Mich.; Nora Holthouse, Ind.; K. M. McMahon, Minn.; F. M. Parmelee, Miss.; R. R. Magladery, Calif.; J. Fred Foy and C. D. Stephens, Ia.; Joseph Hehir, Chicago; F. E. Culonwell and Geo. E. Lawson and wife, Detroit; A. W. Newman, Cleveland; Harry Chase, Grand Rapids; J. Adams Puffer, Boston; Freddie Foy, Mich.; Mrs. A. O. Alex-

ander, Denver; T. F. Wetzgman, Neb.; O. B. Warren, Minn.; C. J. Sherman, Ind.; W. D. Cannon, Jr.; Ia.; Mrs. A. G. Cleveland, N. Y.; R. C. Davis and L. L. Davis, Pittsburg; John Naylor and Miss Laura M. Naylor, Detroit; S. Shapiro, New York City; B. C. Rosenerans, Wis.; Mrs. J. M. Stilwell, Miss Clara Schidd and Buson Stilwell, Ill.; F. F. Burdick, Chicago; G. W. Ganett, Pa.; Mrs. Wm. Carey and J. Thos. Carey, Ill.; J. D. Hauman, Ia.; A. E. Cowles, N. Y.; R. W. Marchant and wife, Baltimore; Mrs. Geo. F. Cook, Detroit; Miss McDowell, Mich.; Miss H. F. Homer, Mrs. Mini H. Pillow, Mrs. E. D. Pillow and E. D. Pillow, and Jas. A. Homer, Ark.; J. P. Kuechle and H. Trout, Mich.; George Brown, O.

News and Personals

Mrs. E. N. Harris, missionary of the Baptist Board in Burma, is a recent arrival at the Sanitarium.

Mr. C. P. Frederickson, of Sioux City, an old friend of the institution, spent a day or two with us last week, renewing old acquaintances.

Chaplain McCoy has been giving some very inspiring morning talks at the helpers' services in East Hall, in which much interest is manifested.

Dr. David Paulson, of the Hinsdale Sanitarium, spoke to a large congregation in the chapel on Sabbath morning, with all his old-time vigor and power.

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Battle Creek, Michigan.

The Sanitarium has among its distinguished guests Mrs. Bertha Cook, wife of the editor of the *Detroit Free Press*, and prominent in Detroit circles.

Dr. Jas. T. Case has returned from another Eastern trip in the interests of the X-ray department. He has spent several weeks in Philadelphia and New York with some of the leading experts of the United States.

Miss Caroline Zahn, medical matron of the Sanitarium, is spending her vacation with Mrs. Mayer, an ardent friend of the Sanitarium, at Fort Worth, Texas. She writes that she is having a most delightful visit.

Mrs. Van Dorn, of the Life Boat Mission in Chicago, spoke in the parlor on Sabbath afternoon to an attentive audience who seemed greatly interested in her account of the work done by the Life Boat Mission among the poor and needy of Chicago.

We are pleased to hear from Dr. Ben Nicola, one of the past graduating class of the American Medical Missionary College, that he has passed most successfully the State examination in Washington and expects to locate in that State.

Mr. S. G. Babcock, of the Sanitarium family, and his wife, who has been assisting in the eye and ear department, are leaving for Hutchinson, Minn., where they will take charge of a farm. We wish the young people much success in their new sphere.

Among the new arrivals at the Sanitarium are Mrs. H. S. Horner, of Helena, Ark., an old friend and patient of the Sanitarium; Mr. M. E. Milner, of Helena, Mont., a former patient and an enthusiast on Battle Creek principles.

Mrs. John Alexander Dowie is a recent arrival at the Sanitarium. She was accompanied by her son, A. J. Gladstone Dowie, from their home in Ben Mardhin, near Montague, Mich. Mrs. Dowie is already feeling greatly rested and restored, and is enjoying her visit to the Sanitarium very much.

Dr. Carolyn Geisel, of the Sanitarium, has gone South to take part in the Florida Chautauqua. Doctor Geisel has dates in five Chautauquas for lectures upon health and hygiene. She is accompanied by Miss Eva Evans, a graduate nurse of the Sanitarium, who will assist in demonstrating Sanitarium principles and methods.

The Sanitarium Christian Endeavor meeting on Friday evening in the chapel was led by Miss Marjorie House, the subject being "Lessons from the Life of Joseph." It was a very helpful and inspiring meeting, in which a large number of people took part. The subject for next week is "Serenity: How to Get it: What it Accomplishes."

The Students' Volunteer Band of the Sanitarium held its meeting on Sabbath afternoon at 3 o'clock in the fifth-floor parlor. This meeting was followed by the usual mission study class, which was led by Mr. Barr.

The class is studying "Korea in Transition," and the topic taken up was, "The Religious Beliefs of the People." Several members took part in the discussion. A cordial invitation is extended to everybody.

We are all pleased to have with us again Goodwin Smith, Esq., of New York, a prominent lawyer and philanthropist of the East. Mr. Smith has been called to fill many important places in the charitable work of the city and State. He is thoroughly in sympathy with the work and principles of the Sanitarium, and is presenting them in theory and practice in the wide field of his influence.

Mrs. Geo. I. Goodenow and daughter, Miss Esther, of Kalamazoo, have returned home after a brief visit to the Sanitarium for rest and treatment. Mrs. Goodenow was for two or three terms President of the Twentieth Century Club of Kalamazoo, and is prominent in the work of women's clubs throughout the State, and a writer of considerable note. She has been visiting her brother, Col. M. B. Duffie, of the Sanitarium.

Mrs. Hattie Mays Knapp, who recently finished her nurse's training course in the Sanitarium school, has left us for the purpose of joining her husband in southwestern China. Mr. Knapp left us last summer for the mission field, and they are now going out as missionary nurses under the Methodist Board. Several others of our nurses expect to make the foreign mission field the scene of their future work, and we anticipate that those who have gone will be but the first of a large number to follow their noble example.

Another of the Florida Chautauquan lecturers is, Madame Mountford, who has just left the Sanitarium after a few weeks spent here. Madame Mountford expresses herself as delighted with the Sanitarium and its principles and treatments. During her visit the Sanitarium family has had several opportunities of hearing this gifted woman lecture upon Bible life and scenes in Palestine, and during these lectures interest has steadily increased until the closing lecture was given in the parlor on Sunday evening to a very large audience, who listened with the deepest interest and closest attention.

On Tuesday evening, Miss May Lawrence Claxon entertained a large audience in the gymnasium. Miss Claxon is a famous Southern dialect reader of whom Col. Polk Miller, of Richmond, Va., who is the best interpreter of the old-time "Darkey" in the country, says: "Her renditions of the Negro characteristics are delightful and unsurpassed. They refer to the dear old mammys and Uncle Toms of bygone days." Miss Claxon's father was a judge in Central Kentucky, and when only six years old she began reciting negro sermons. She sustained her reputation admirably with us.

The Sanitarium W. C. T. U. held its meeting in the parlor on Sunday afternoon. There was a very good audience, and earnest attention was given to the speaker, Mrs. E. A. Calkins, President of the Michigan W. C.

T. U. The subject was, "The Living Issues of Human Nature." Mrs. Calkins dealt very earnestly and intelligently with the saloon problem, and urged all her hearers to activity in the campaign which is now on for continuing the prohibition in Calhoun county. Her facts as to the prosperity of Battle Creek under prohibition were indisputable and were presented in such an earnest and convincing manner that they could not fail to carry conviction to the minds of the hearers.

Prof. M. V. O'Shea lectured on Tuesday evening, Feb. 7, in the parlor to a large audience, his subject being, "Hidden Forces in Human Nature." Much merriment was caused by his asking the audience to read rapidly from a large chart composed of a short list of familiar words. Later it was found that not one of the words really spelled what was pronounced. Thus he illustrated the tendency of the mind to rely on previously formed impressions; to perceive at once a whole when but a part is present to the senses. Much other and exceedingly interesting data was given to show how this peculiarity of the mind is used by fakirs in every line, being the basis of superstition, palmistry, and all semi-mysterious cults. He spoke of the strength and permanency of the mental attitude, and the vigilance necessary on the part of parents and teachers.

A pleasant afternoon was spent in East Hall parlor on Thursday, the 9th inst., when all the resident missionaries gathered for a social hour to welcome Rev. Arthur H. Smith, D. D., a missionary of the American Board in China. Doctor Smith is well known as a lecturer and author of numerous works on China. There were more than thirty missionaries present, and words of sympathy and regret were sent to six of the resident missionaries who were unable to be there. Miss Dessie Jones presided at the piano and the audience was greatly delighted with her beautiful selections. Light refreshments were served and an enjoyable time was spent in conversation by the visitors who had come from all parts of the world to enjoy the benefits of the treatments at the Sanitarium. Doctor Smith, the guest of honor, being introduced to the company, addressed the meeting in a few well-chosen and felicitous remarks regarding his impressions of the Sanitarium as a place of rest and recruiting for the missionaries returning from their fields of labor. The missionaries present at the social and shown in the picture on the first page were: Dr. and Mrs. H. T. Whitney, of China; Miss Glennie, of Turkey; Miss Marker, of Korea; Mrs. W. C. Terrill, of Africa; Mrs. M. P. Parmelee, of Turkey; Rev. A. B. Deter, of Brazil; Rev. J. T. Worley, of China; Miss Ayres, of Burmah; Miss Tschurch, of Burmah; Miss Alice Peters, of China; Mrs. Neeld, of India; Dr. S. J. Thoms, of Arabia; Mrs. W. A. Mansell, of India; Dr. Rosa Palmborg, of China; Dr. and Mrs. Kelley, of China; Miss Georgia Ely, of Turkey; Miss Gerda Paulson, of Japan; Mrs. Umlauf, of India; Mrs. Shellabear, of Malaysia; Miss Jennie Pieters, of Japan; Dr. and Mrs. H. L. Canright, of China; Rev. Arthur H. Smith, D. D., of China.

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FOODS—THEIR COMPOSITION AND FUNCTIONS

Dr. W. H. Riley Discusses the Question of Foods on the General Principles of Material and Energy

(Concluded)

BESIDES the energy that we take into our bodies in the food that is used for keeping the body warm, is the energy used in muscular work. And the energy that we use in muscular effort comes from the food that we eat. There is no other way in which we can obtain energy. We do not make energy; nobody can make energy. Our body is a sort of apparatus for taking the energy that is in the food and transforming it into many other forms,—into heat, into muscular work, into mental work, and energy for the use of the various glands of the body in performing their work. This energy obtained from food is used in all the bodily activities, voluntary and involuntary, and even for doing our mental work. In mental work we are expending energy in a certain amount; it is a very subtle form of energy, and yet we spend energy in thinking, and that energy comes from the food alone.

Now let us notice

The Origin of the Material

that is in the food. The material in the food comes from the earth, the air, and water. This material is taken up by the plants in simple compounds. For instance, a plant takes carbon-dioxide and water, and out of that it will make starch. Two parts of hydrogen and one part of oxygen united chemically form water. And one part of carbon and two parts of oxygen united chemically form carbon-dioxide or carbonic acid gas.

The plant takes up carbonic acid gas and water and other simple compounds like these, and out of these the plant will form foods. Starch contains six parts of carbon, ten parts of hydrogen and five parts of oxygen. The plant takes these simple elements out of the earth, and we get them in the form of food. After they pass through the plant and the plant forms them into starch, then the animal gets the energy out of the starch that the plant makes.

(Continued on page four)

The Blood is the Life

The Vital Fluid is Carefully Noted in Diagnosis and Prognosis—How the Sanitarium Laboratories Take Account of the Invalid's Blood

So important is the relation of the blood to the well-being of the body that the Bible iterates and reiterates the statement that the



REV. CHAS. C. CREEGAN, D. D.,
PRESIDENT MEDICAL MISSIONARY CONFERENCE

life is in the blood, and that the blood is the life. The circulation of the blood throughout the body is one of the most wonderful of all the vital functions, and one that must be carried on without interruption from the first to the last of life. In the embryo the first sign of vital activity is the beating of the heart, and the process of development seems to consist of the formation of a body and its various organs around the central activity of the heart, and along the lines of the circulatory system.

(Continued on page two)

THE HUMAN RACE IS DEGENERATING

In a Lecture to Patients, Dr. J. H. Kellogg Presents a Startling View of Human Probabilities

AN eminent scientist, Professor Cockerell, recently contributed an article to one of our leading scientific journals on the question, "What is to be the Future of the Human Race?" And he tells us if we go the way other animals have gone, we can hope to continue one hundred thousand years, but that will be the end of us; because he shows very clearly by the geologic record that every species of mammal that has lived has either become extinct or changed into something else entirely different as the result of the changing conditions of life upon the planet.

Now the question is,

Whether Man Will be an Exception.

Scientists find that the mollusk, the oyster and the clam, the snail, the polyp, the amœba, all remain the same from age to age; these undifferentiated creatures, that are very simple in their organism, go on from age to age. It seems, indeed, that protoplasm is more enduring than the hardest rocks, for the rocks crumble and disappear, but little drops of protoplasm retain the same characteristics age after age; while the complex animal perishes or is converted into something entirely different. All the races of mammals, one after another, the masterpieces of creation especially, have perished, and there is left nothing but the poor, humble creatures—the oyster and the clam, that go on from age to age. Now the question is whether man is going to continue like the oyster and the clam, or whether he is going to perish like the other higher mammals.

Professor Cockerell thinks that if we do not go down any faster than other animals of our class, the apes, the gorillas, chimpanzees, and others, are going, that we may survive 100,000 years; but we never can live out this 100,000 years at the rate we are declining.

But What Are the Facts?

that look us in the face? Do the existing conditions bear out this theory? See how

disease is carrying us off. Within thirty years, within one short generation, the mortality from chronic diseases has doubled. That is a thing to be thought about. If the mortality from chronic diseases had doubled in a thousand years, it would be a calamity that would challenge the conclusions alluded to. It would not take very many thousand years to infect the whole population by these chronic maladies. But instead of doubling in a thousand years, they are doubling every thirty years! Every year three-quarters of a million people in the United States are carried off by chronic maladies of the heart, the lungs, the blood-vessels, the kidneys, the liver, and the nervous system. That is a great city completely depopulated every year.

A million and a half people are dying every year, and half of these are dying from chronic maladies, and the number is doubling every thirty years! At that rate, in thirty years more, it will be 1,500,000 every year; and in thirty years more it would be three million; and in ninety years from now it would be six million; and in thirty years more twelve million, and so on to a sudden end. I do not know any reason why it should not keep right at that pace, because when we look back we find that the rate of increase within the last six or seven years has been much greater than at any previous time.

Deaths from Diabetes,

for example, will have doubled in twelve years at the present rate of increase. Cancer out in Denver has increased nearly fifty per cent in five years; and so we are going on at this awful rate of increase, and we can not keep on very far. It will not be more than 250 years or 260 years until all will be lunatics and idiots if we keep on at the rate insanity is now going on. So we are going down much faster than other members of the mammalian family because of our very wide departures from normal conditions. See how we have departed, for instance, in the matter of diet. If an animal changes its food supplies, or its climatic conditions, the animal goes to the wall, because it has been deprived of its natural conditions of life, and as a result it degenerates.

Man dodges this evil to some extent, by his ability to travel, to change from one country to another; and so when the climate becomes oppressive in one country, he can go to another. For instance, when Greece reached the very height of its glory, of its marvelous civilization, malaria came in upon Greece and destroyed it. The destruction of Greece was due less to the Turk than to the anopheles mosquito. Modern researches have shown that to be the practical truth about it.

But the world has never at any time been afflicted by any pest from which there was no escape. There has always been some other place to go to. And human beings have found it possible to modify and change their diet.

As an Emergency Diet

they began at first to eat meat, and became flesh eaters through the urgency of famine or some other exigency; so man has become omnivorous, and by being omnivorous, he is able to live in any part of the world,—in the arctic, where vegetables do not grow; or in

the torrid regions on a vegetable diet. But, although man has been able to live for the time being to escape starvation, he has not escaped the degenerative, destructive influence of this change of diet.

A dog naturally gets on very well with the carnivorous diet, because he has a liver made for a meat diet; and he has an intestine made for a meat diet. The dog's intestine is about half as long as a man's intestine, in proportion to his length, and his liver is four times as big. The short intestine makes it possible for the dog to get along very well with a putrescent or meat diet. In the first place, he has much more powerful and more active gastric juice than that of the human being; it is able to disinfect decayed and even diseased flesh. A physiologist made an experiment of giving a dog some rancid meat. Half an hour afterward he killed the dog took this meat out of his stomach, and it was perfectly fresh and sweet; it had been completely disinfected and deodorized by the gastric juice of the dog.

Some people would perhaps wish they had that kind of gastric juice so that they might eat *pate des foies gras*, and other putrescent food with impunity. But it is fortunate for us that we have not that kind of gastric juice, because along with this powerful gastric juice, the dog has to have a liver that is four times as powerful as the human liver. So with his short alimentary canal, with a stomach which has such powerful digestive properties, and with the short alimentary canal, the animal is preserved against the effects of putrefaction, or auto-intoxication. There is very little opportunity for the flesh food to undergo putrescence; it is thoroughly disinfected in the stomach, and then the short alimentary canal does not give an opportunity for any extensive putrefaction; and then if there is a little putrefaction, if some poisons are absorbed from the food, the dog's powerful liver is able to destroy those poisons.

Man Can Not Live upon a Dog's Diet

When a man undertakes to live upon a dog's diet without the protection with which the dog is provided, evil consequences naturally arise very quickly. The dog can safely live upon meat without injury because of the special provision for resisting the evil effects of meat eating; but a man can not, because he has not that same provision. Man, undertaking to live upon a dog's diet, suffers more than the dog does. The dog is going down hill; he can not live more than 100,000 years, the zoologists tell us, anyhow; the dog will become extinct in that time at the rate he is going down; and man must be going down much faster, because he has departed farther away from his normal state of life; not only so in relation to diet, but in relation to other things.

It is only possible for man to live in most places by creating for at least a portion of each year an artificial climate. He builds a house and burns fuel in the house and makes the temperature what he wants it to be. So his conditions of life are artificial. This artificial climate which he creates, in which he shuts himself up, he not only makes warmer than it should be, but he contaminates it, fills it full of poisons. With every breath he poisons three cubic feet of air, and ren-

ders it unfit to breathe again. Air is the means by which our bodies are purified. It comes into the lungs, goes from the lungs to the blood, travels through the body and cleanses the tissues.

Man shuts himself up in an artificial climate, and saturates his body with unclean air, so the poisons he exhales are received back into his body again; and the consequence is that by this artificial climate we have created, a long list of maladies have come upon us which did not before exist.

Consumption is a House Disease.

No animal that lives in the open has consumption. If a man gets consumption and lives outdoors, he gets well, if he begins soon enough. These two conditions—a change of diet to another kind of diet, a wrong diet, a diet never intended for us, and changing the habitation from the outdoors to the indoors, are sufficient of themselves to produce the extinction of the race, to shorten very greatly the period allotted to us by Professor Cockerell.

The degenerative influences at work all about us are dragging us down, and the evidences of decay and degeneracy are simply appalling when you come to look at them. Why, the birth-rate has dropped off in the last four or five years thirty-three and a third per cent, and that means the loss of a million babies a year, for the United States alone. Suicides are increasing; murders are increasing, insanity is increasing, all forms of diseases of degeneracy are increasing, and for the reason that heredity is multiplying the tendencies to these diseases in each generation.

This is no picture painted for the occasion; it is only a very partial presentation of very apparent truths that face us on every hand. The human family is degenerating at a rate altogether out of proportion to the natural tendencies as presented by scientists. We are far away from the normal conditions under which the race was intended to exist, and our only hope is in a return to simpler ways, to ways more in harmony with the actual demands of health and life.

THE BLOOD IS THE LIFE

(Continued from page one)

There are, in the adult person, on the average about

Six Quarts of Blood,

varying quite widely in different individuals. The entire volume is said to pass through the circulatory system every two minutes. It has been carefully estimated that the heart exerts at each beat a force sufficient to raise 2.08 pounds one foot high. As the heart beats at an average rate of seventy-two times a minute, we have the remarkable fact that the labor of the heart is equal to that of raising over 150 pounds one foot high every minute. And that is a task that but few men, if any, would care to undertake even for a few hours at a time. Yet this enormous task is faithfully performed by our hearts constantly, and our lives depend upon its being kept up without the remission of a single moment. The object of this mighty effort is to promote the circulation of the blood.

The blood is forced out from the heart through large trunk arteries that divide and subdivide, continually becoming more minute as they are spread out, until they reach every part of the body so perfectly that not the point of a needle can penetrate the skin at any place without puncturing one or more of these blood-ducts. So fine do they become that they are named "capillaries," because of their hair-like size, for they are in fact smaller than the finest hair, and to be seen only with the microscope, and are computed to be 1-3000 of an inch in diameter. After being forced through these minute tubes the blood again returns to the heart and lungs through tubes or vessels called veins that increase in size as they approach the heart.

Composition of the Blood

The blood consists principally of a fluid or plasma, a colorless, watery substance, acting as a medium through which the more vital portions of the blood are conveyed about through the body. These vital elements consist of very small bodies of highly vitalized matter, protoplasmic in character, and of various species. By far the larger portion of these particles are colored deep red or crimson, and it is the presence of these that gives to blood its red appearance. These are the red blood corpuscles, and they are flat, disc-shaped particles, like a cent piece slightly concave on their surfaces. So small are they that 3,000 of them placed edge to edge would scarcely extend one inch. A drop of blood no larger than could be made to cling to the point of a knife is said to contain 3,000,000 of them.

White Corpuscles

Mingled with these red corpuscles are certain species of white cells or corpuscles in the proportion, in normal blood, of one to 666 red ones. Upon these corpuscles, both red and white, depends the economy of life. The white corpuscles act as destroyers of poisonous elements that find their way into the blood or into any of the tissues. The pus which is discharged from a suppurating wound or sore is composed of these white corpuscles, which have come to the rescue of the body and have given their lives to save our lives. They attack poisonous germs and devour them, and it is to their vigilance and activity that we owe the preservation of life from hour to hour.

The red corpuscles convey oxygen from the air to the entire system and return to the lungs laden with the carbon-dioxide given off by the body, which they discharge through the lung tissue into the atmosphere in exchange for oxygen from the same element.

Thus, even from this glimpse, it will be evident that the blood serves a most vital part in our lives.

When a Patient Presents Himself

to the Sanitarium physician, one of the first and most important considerations is to ascertain the exact condition of the blood. The questions to be decided are several, among them the following: What is the number of the corpuscles contained in the blood? What is the number and proportion of the white corpuscles as compared with the red ones? What is the color of the red ones? that is, what proportion of hemoglobin do they con-

tain? for upon this point depends their efficiency. Then another consideration is as to the vitality of those white corpuscles whose special office it is to destroy poisonous and disease germs. It is upon this point especially that the probable outcome of certain infectious and germ diseases depends. If it appears that these little defenders are able to cope with and destroy the invaders, the patient is considered as very likely to recover. If it be found that they are not able to do this, then there is a serious prospect unless the strength and vitality of the blood can be raised. This can usually be done, however, and thus the health of the invalid is restored. The work of the examination of the blood is done by

Expert Microscopists

who give their entire time to that class of work, and in laboratories fitted up especially

Not only are the numbers of the corpuscles thus ascertained, but a differentiated count is made to ascertain whether the normal proportion of each species of the white corpuscles is present; and if it be found that some are deficient, the treatment of the patient is directed to the end of remedying that deficiency.

The blood is also

Tested for Hemoglobin,

the amount of which is determined by the density of the red coloring matter contained in it. There are many other tests to which the blood may be subjected in special cases. Where the presence of bacteria is suspected a most careful examination for bacteria is made.

The examination and testing of the blood is a very important consideration in diagnosis as well as in therapeutics. A full



DR. KATE LINDSAY DR. ANNIE STEWART DR. MAGGIE DOANE DR. P. M. LAMSON
THE LADY PHYSICIANS OF THE SANITARIUM IN 1880

for that work. Each day at twelve o'clock blood tests are taken in the main building by the laboratory men and a physician. This consists, first, of taking the blood-pressure by the sphygmomanometer, which accurately records the pressure of the blood in the brachial artery. Then a drop of blood is diluted in a fluid, called Hayem's fluid, prepared especially for the purpose. The amount of blood and fluid are most accurately measured, a certain portion of the mixture is spread over an object glass that is divided into a meshwork of little squares and placed under a powerful microscope, and the blood cells or corpuscles contained in several of those squares are counted and average taken, and thus the number of corpuscles in a cubic millimeter of blood is computed, from which it is easy to compute the exact and relative condition of the blood in general.

knowledge of the condition of the blood furnishes not only an indication of the condition and trouble of the patient, but is equally plain in pointing out the thing that needs to be done for him.

No portion of the human system is to be more carefully considered than is the condition of the blood. It is in the current of the blood that the tissues are bathed and washed of impurities, and the washing done in impure blood would be far worse practically than to wash the face in filthy water. The blood is also a life-giving stream that nourishes the entire body. Food is absorbed into the blood and thus conveyed to the places where it is needed and for which it is designed. Then, too, the blood contains the principal defenses of the body against invading germs of disease. These facts render the care of the blood of the very highest importance.

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SOME RELIABLE AND STARTLING TRUTHS

THE lecture by Doctor Kellogg reported in this number of our paper reveals a startling situation. Those who speak of these things are apt to be regarded as alarmists. At a recent gathering where he presented some of these facts he was openly charged by an ardent Christian Scientist with being a deep-dyed pessimist. This man declared that diseases, both chronic and acute, existed only in the imagination, and were dependent upon the mental condition of the individual. He declared himself immune from the inroads of disease though he defied science and sanitary law by eating and living as he chose, and he was well because he ignored disease and gave it no place in his mind.

Unfortunately, though, there are people outside the ranks of so-called Christian Scientists who have the hardihood to boldly proclaim their premeditated ignorance of vital truths, yet live in the same indifference to them. And this is the greatest source of danger. If people could be aroused to a sense of the situation, there would be a wave of reform such as would stay the tide of degeneracy that is now setting in so strongly toward extinction.

To show that the view of the situation presented in his lecture is not held by Doctor Kellogg exclusively, we present herewith some statements made by Dr. Eugene H. Porter, Health Commissioner of the City of New York, before the convention of Life Insurance Presidents held in Chicago last December, and published in the report of that meeting. We quote as follows:

The registration area of the United States now includes eighteen States, or 55.3 per cent of the total estimated population of Continental United States.

The total number of reported deaths in the registration area for the year 1909 was 732,538, an increase of 40,964 over 1908.

Deaths from general diseases increased from 186,264 in 1908 to 192,788 in 1909 (6,524, or 3.5 per cent). The death-rate, per 100,000 population, from general diseases decreased from 413.7 for 1908 to 395.2 for 1909. The United States Census Bureau states that the rate for the latter year is the lowest of any year since the establishment of

the Bureau in 1900, and probably the lowest of any previous year in the history of the country.

While typhoid fever, measles, scarlet fever, diphtheria and croup, and nearly all of the infectious diseases belonging to this group showed decreased death-rates for 1909, the chief numerical decrease in the deaths was due to the decrease in the number of deaths from influenza, which fell from 9,989 for 1908 to 6,649 for 1909.

Deaths from diseases of the nervous system increased from 71,090 for 1908 to 74,656 for 1909—3,566, or 5 per cent. The death-rate fell from 157.9 to 153.1 per 100,000 population. The increase in the number of deaths for this class of diseases was due chiefly to apoplexy.

Deaths from diseases of the circulatory system increased largely, from 80,607 in 1908 to 90,456 in 1909, an increase of 9,849, or 12.2 per cent; and the death-rate increased from 179 in 1908 to 185.4 in 1909.

The greater part of the numerical increase of this class was due to deaths from organic heart disease—5,933 or 9.9 per cent—although the proportional increase for deaths from endocarditis (912 or 15.2 per cent) and diseases of the arteries (2,239 or 28.2 per cent) is greater.

Diseases of the respiratory system showed about the same increase in the number of deaths as diseases of the circulatory system for 1909, as compared with 1908.

The death-rate increased from 181.6 to 186.3 per 100,000 population.

The increase in deaths from diseases in this class was due largely to pneumonia, which caused 61,259 deaths, or 136 per 100,000 population in 1908, and 70,033 deaths in 1909, or 143.6 per 100,000 population.

Deaths from diseases of the genito-urinary system increased from 51,717 for 1908 to 57,070 in 1909 (or 10 per cent). The death-rate increased from 114.9 for 1908 to 117 in 1909. Bright's disease constitutes the chief cause of death in this class, and is the only one that showed a notable increase in the number of deaths.

Cancer showed a much greater proportional increase in the number of deaths than tuberculosis, rising from 33,465 in 1908 to 37,562 in 1909, and the death-rate increasing from 74.3 to 77, the latter being the highest ever recorded for the registration area of the United States. A marked increase in the deaths from cancer is shown for all the main subdivisions of the registration area. In New York State there were recorded 7,034 deaths in 1909. The average yearly deaths for twenty-five years has been 4,227.

Pneumonia, in the aggregate, caused more deaths in the registration area than any other disease except tuberculosis. The number of deaths increased from 61,259 in 1908 to 70,033 in 1909—the latter being only 7 less than the number of deaths from tuberculosis of the lungs—70,040. The death-rate from all forms of pneumonia increased from 136 per 100,000 population in 1908 to 143.6 in 1909.

The decrease in the mortality rate from typhoid fever and tuberculosis can hardly be said to be satisfactory. Although the typhoid rate fell from 25 to 22 in 1909, during the years 1905 to 1908 there was an increased urban death-rate as compared to the years 1900 to 1904. The returns for tuberculosis should be much better during the next five years if the work so bravely and enthusiastically begun is steadily continued. The death-rate of pneumonia seems to be steadily increasing; its ravages approach those of tuberculosis. Heart disease, cancer, diseases of early infancy, Bright's disease and ne-

phritis all show increase, nor is the decrease in the mortality rate of scarlet fever, measles, and some other infectious diseases of a strikingly marked character.

There can be no doubt as to the authority and reliability of these statements, and if any confirmation of the testimony of Doctor Kellogg be required, it is to be found here. Deaths from organic heart disease show an increase in the one year of nearly ten per cent, and from endocarditis 15 per cent. In Bright's disease the increase was fully 10 per cent in the same year. Fatalities from diseases of the respiratory system are declared to be equal to that of the circulatory system; and cancer and pneumonia are rapidly gaining in their pursuit of human victims.

In the prevention of acute diseases there is shown a gain because of the efforts put forth by municipal and other authorities to guard the milk supply and to check epidemics. But in those diseases which are bred in our own bodies through long-continued neglect of the laws of life there is an alarming increase; and he who raises the warning voice should not be cried down as an alarmist and pessimist, though he can well afford to suffer this for the great privilege of having faithfully warned the people as one who is entrusted measurably with their welfare.

THERE is no room to doubt that the condition of the health depends to no small degree upon the condition of the mind, and the condition of the mind is very dependent upon environment, and the mental attitude toward the surroundings. It may be said with equal truth that the condition of the mind depends just as much upon the state of the health, for it is usually difficult for the one who is sick to be cheerful and happy. There are plenty of people who in health are vivacious and cheerful, but who, when the stomach is out of order, or the headaches, or the appetite is gone, are gloomy and even morose and can see nothing that looks bright and encouraging.

So that we may not charge our mental state with the responsibility of all our ills, nor are our bodily ills to blame for our mental states. Although naturally in sympathy with each other, and naturally very dependent one upon the other, the association is not so close that it can not be severed; it is not absolutely binding. It only requires an effort upon our part to effectually sever their control. If we find that our gloomy thoughts are prevailing over our bodies and depressing us, it only requires a vigorous effort to shake off those gloomy powers and assert our liberties.

FOODS—THEIR COMPOSITION

(Continued from page one)

The plant takes ammonium compounds and other simple compounds, and puts them together into a chemical compound that we call a food. A plant is the only medium in the world that can make a food.

Animals Do Not Make Food.

That may seem like an extravagant statement, but it is correct. Of course some will say that the animal eats hay and grass and the flesh of the animal is food. The animal that eats that food has a digestive apparatus arranged in such a way that he can digest hay and grass, but the human subject can not. But in eating the animal man appropriates the food eaten by the animal. There are different kinds of plants, and the plants take substances and make foods out of them.

Plants are food producers; animals are food consumers. Some plants produce food especially for human stomachs, and some produce foods for the stomachs of grazing animals. It seems to me that this point would have a very important bearing in an-

between the amount of energy that we expend and the amount of energy that we take in. If we compute the number of heat units that we take into our bodies, and that are consumed, we can figure out the amount of energy that leaves our bodies. There is no more that leaves our body than we can take in; one equals the other. The energy may remain in the body temporarily, yet it all eventually comes out.

There is some energy in carbon-dioxide, and there is a great deal of energy in water, but the body can not get the energy out of the water. Water enters the body as water and leaves the body as water, consequently does not leave any energy in the body in passing through it. In order to give up energy to the body, a substance must be changed chemically. Water is not changed at all;

any substance that is harmful to the body. There has been some discussion in recent years in scientific circles with reference to whether alcohol is a food or not. It is true that a small amount of alcohol is oxidized or burned up in the body. But that does not prove that it is a food. It is not a food.

Food is a chemical compound; that is, it takes two or more chemical elements to make a food. If you have a food with two chemical elements, when you divide them, that substance ceases to be a food. So a food substance is the simplest and most elementary form in which it can exist as a food. If reduced to simpler forms it ceases to be food.

We have six different food elements. You may dine with a king and have a very elaborate bill of fare; it may be fixed up in many different ways, but you can not get into the bill of fare more than six different elements. On the other hand, we may eat our meal by the wayside with the laboring man, and if he has these six food elements in his meal in the right proportion, our bodies are furnished with nourishment just as well as though we had eaten with the king. In other words, the six food elements are the things that nourish the body; no more, no less; we can not add anything to them that is essential.

Carbohydrates

First of all we have what are called carbohydrates. These contain carbon, hydrogen, and oxygen. Carbohydrate is a chemical word; it means the hydrate of carbon; and a hydrate is a substance that contains hydrogen and oxygen in the same proportions that they are present in water. And a carbohydrate is a substance that contains hydrogen and oxygen in the same proportion that they are present in water, and in addition contains carbon. Carbohydrates are furnished to us by all the cereals. All breads and all the different foods made



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swering the question, "What is the natural food for man?" The animal does not make food. Plants are the only things in the world that make food. A plant will take materials that are not foods for the animal and make food out of them.

Then, the material in

Our Food Comes from the Earth,

the air, and water, and before these become foods they pass through the chemical laboratory of the plant, and the plant takes these substances which are not foods and makes them into substances which are foods. Animals can not live without plants. One animal might eat another, and that would only result in the destruction of all animals.

Of course you understand there are some substances such as common salt, and what we might call inorganic foods, that are of mineral origin, and water. Their food value is very little indeed, and they do not have a very important bearing on digestion. And yet they are food substances, perhaps, and they may be used without passing through the plants, but they do not interfere with the principle as stated.

What is the Origin of the Energy in the Food?

All of the energy that is in the food comes from the sunlight. And the energy that we are expending to-day in doing our daily duties, at one time existed in the form of sunbeams, and that energy was gathered and stored up by the plant. And the energy that we take into the body in the form of food comes from the sunlight, passes through the plant, and then we take it into our bodies in the form of food. And there is a very definite and close relation existing

therefore, does not give up any energy. And so it is with carbon-dioxide; it has some energy, but the body can not appropriate it, and so can not use it.

A Food is Any Substance

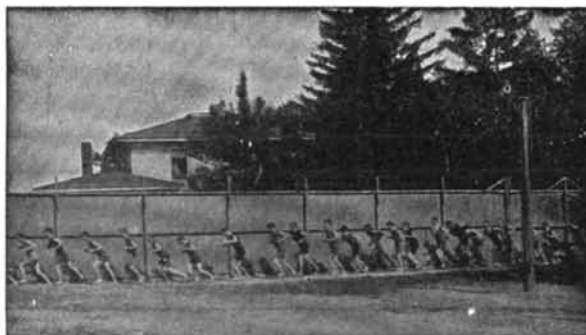
that contains material and energy that the body can utilize. The body can not use the energy from the sun directly. It must come through the plant before the body can use it.

In order to have our definition complete, we must add that a food must not contain

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from grains contain carbohydrates. The vegetables also furnish a large amount of carbohydrates. And then in the form of sugar we have another carbohydrate.

Carbohydrates are found in several forms. First, we have cellulose, represented by the bran of the wheat, and by the fiber in fruit and in vegetables—a sort of very fine wood. Cellulose can not be digested by the human digestive apparatus. The lower animals, particularly the herbivora, can digest cellulose; but the human digestive apparatus can not digest cellulose to any great extent. Our bran biscuit is used for a medicinal purpose, for relieving constipation. If we could digest the bran, the biscuits would lose their therapeutical effect; they would not relieve the constipation because the food would be digested and absorbed, and the reason it relieves constipation is because the bran is not digested but furnishes the bulk which aids in moving the bowels.

There are starches; and there are a great many different kinds of starch, such as corn-starch, wheat starch, potato starch, etc. The chemical formula for these starches is $C_6H_{10}O_5$. Take the several sorts of starch and put them under a microscope and you will find that the granules have different out-

lines for different kinds of starch. These little granules of starch are something like a little box, and inside of this box is the starch granule, and the box is cellulose. We cook starch to break this box, dissolve the cellulose covering and allow the starch granules to escape. The human digestive apparatus can not digest raw starch.

Sugar is produced in the cane and in many other plants. There are different kinds of sugar, cane sugar, grape sugar, levulose or fruit sugar, and the sugar of milk. These are the principal sugars. Cane sugar is used as a food more than any other. But cane sugar is not the best kind of food. Taken in large quantities it irritates the mucous membrane of the stomach. One who has an excess of acid in his stomach should not eat much cane sugar, because it irritates the lining of the stomach and tends to increase the secretion of acid; it also increases the secretion of mucus in the stomach, and if one has hyperacidity or hyperchlorhydria, he should certainly

Restrict the Use of Cane Sugar.

Grape sugar is the sugar of the grape, which has a different chemical formula than cane sugar, and it is more wholesome. The

sugar of fruit, levulose, is a very wholesome sugar, and it is found in the fruit principally. Here at the Sanitarium we have what we call malt honey, or meltose. It is the same kind of sugar that we make in our mouths when we eat starch. The saliva converts the starch and dextrin in food into sugar, and that sugar is called maltose. At the Sanitarium we have to deal with a lot of people who can not digest starch well, and that is the reason that we manufacture this malt honey.

Fats and Oils Are Foods.

Generally speaking, fats are produced in the animal kingdom, and oils in the vegetable kingdom. There are three principal kinds of fats: the hard fat, called stearin; soft fats, called olein and palmitin. Oils are found largely in the vegetable kingdom, such as olive oil, and nut oils; these contain the same chemical elements as the carbohydrates, but they are composed in a different way. The chemical formula for them is rather complex.

There is more energy in the fats and oils than in the carbohydrates, but the fats and oils do not lend themselves so readily to the use of the body; the body can not get the energy out of the fats and oils so readily as out of the carbohydrates, and so perhaps they are not quite as good a class of food; and yet in some respects they are desirable. And I should mention butter and cream, which are the most common forms of fats used as foods.

Fats and oils have, in addition to their food value to the body, other very useful qualities. If one has a high degree of acidity, he should eat a large amount of fats and oils, while a person with an insufficient degree of acidity should avoid these elements. Fats and oils have a laxative effect. And they are of some importance in stimulating nutrition. Particularly in tuberculosis fats and oils seem to have a very stimulating effect upon nutrition.

Another Food Element is Acid.

These are principally fruit acids, such as the tartaric acid of the grape, malic acid in the apple, citric acid in the strawberry, and the lemon, oranges, and other citrus fruits. Then we have the lactic acid in milk. These are the principal acids. These acids are very important, however. Their value has not been properly appreciated. In addition to their food value, these acid fruits also have a certain medicinal value. They are very good when one has too little acid in the stomach. One can then take the acid fruits freely, not because the acid in the fruit in any way takes the place of the acid in the stomach so far as digestion is concerned, but because the acid in the fruit disinfects the stomach and prevents diseases from coming in. Germs will not grow in an acid medium, and this is the value of the fruit in those cases.

Then we have salts as a food element. We find phosphate of lime, carbonate of lime, and a great many other salts. Some of the French physicians have found out quite recently that the potato is a very valuable food in the treatment of diabetes, on account of its possessing potassium salts, and we use it here for that purpose. Certain salts enter into the structure of the bones. A child has rickets because he has not had the proper

Battle Creek Sanitarium Periodicals

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The Medical Missionary (Monthly)50 " "

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salts in his food to nourish his bones, and they became deformed in that way. Scourvy is produced from the lack of these salts.

The value of raw food is at least partly due to the fact that they contain these salts, and we have here every meal some raw food on the tables, like celery, lettuce, radishes, or something of that kind that contains these salts.

Next we have water. Water does not furnish energy to the body. It simply furnishes material. Four-fifths of our brain is composed of water, and every tissue of the body abounds with water. The best kind of water to drink is distilled water.

I have gone over this subject very hastily, and have not discussed the proteins, but have given you the basic facts in reference to the subject of foods.

ARRIVALS

THE list of arrivals at the Battle Creek Sanitarium for the week ending February 19 is as follows: Goodwin Brown, N. Y.; C. S. Webb, Chicago; Fred M. Matgin, Detroit; H. M. Reed, O.; Mrs. Wm. Hauges, Ill.; Mrs. Jas. McFarland and child, S. Dak.; Henry Mikelson, Ia.; Carl Meyer, Buffalo; Mrs. L. W. Goff and J. W. Brown, O.; Geo. S. Thomas, N. Dak.; C. L. Fisk, S. Dak.; C. W. Lowery, Ark.; Ed. Bohman, Wis.; Fred H. Clark and wife, Detroit; Ella McMahon, Ill.; Mrs. C. E. Speer, Ark.; Mrs. D. W. Kourger, Ind.; Mrs. Otto S. Houston, Tex.; Myrtle M. Wayne, Cleveland; Edgar T. Welch, wife and son, and Mr. and Mrs. A. H. Harris, N. Y.; Frank DePuy and wife,

Ind.; Mrs. D. Schonefeld and Mrs. V. D. Kammer, Chicago; R. J. Gaffrey and Miss McCullough, Pa.; H. C. King, N. Y.; Mrs. Arnold and W. T. Shatford, Pa.; J. W. Hutchinson and Sarah Hutchinson, Ind.; Jas. C. Wood, M. D., Cleveland; John Leitch and wife, and John B. Adams, Detroit; G. F. Bond, N. Y.; Mrs. E. Armound, St. Paul; H. F. W. Schaller, S. Dak.; Mrs. W. L. Smith and E. E. Smith, Mich.; W. F. Steckel, Ia.; Mrs. G. A. Eaton and Avis C. Eaton, Minn.; J. R. Dewey, Ill.; Mrs. O. P. Schriver and Misses Cassie and Helen Schriver, Cincinnati; A. R. Webber, O.; C. H. Fultz, Ore.; Celia Tomlinson, Mich.; M. Barber and wife, Toronto; F. J. Erbeck, Pittsburg; Harris R. Cooley, Cleveland; G. W. Abbott, S. Dak.; A. M. Hawthorn, Ia.; F. T. Sperry, N. Dak.; Mr. and Mrs. Nate Watkins, Ill.; H. A. Saunders, Me.; Dr. J. W. Knapp, M. H. Knapp and I. C. Davis, Syracuse; Alfred Lyth and wife, Buffalo; Mrs. Harry Wright, O.; Mrs. Francis Davis, Pa.; W. W. Lohes, Chicago; G. C. Powell, Ill.; W. F. Nichols, Mo.; Mrs. Geo. MacPhail, Mich.; Wm. A. Bohn, Ind.; Rev. J. S. Potter and Mrs. Potter, Austria; S. Greensberg, Chicago; C. Piper and wife, and J. W. Newton, Pa.; Mrs. Cornetine, Ga.; E. C. Fowell, Chicago; J. M. Graham, Ia.; J. Work, Canada; R. B. Riley, Minneapolis; Mr. and Mrs. W. H. Hill, Ind.; Norman E. Rose, Mich.; J. Newton Nind, Chicago; Grace Kellerstrauss, Mo.; Jas. Ingraham, Minn.; Mrs. Brin and son, Chicago; Mr. and Mrs. A. H. Whitworth, Ark.; C. B. Marks, Wis.; Mrs. Wm. Basley, Ind.; Harry E. Chase, Grand Rapids; Mr. and Mrs. J. I. East, Ind.; Mrs. Wm. Burtless, Mich.; Mrs. Albert Gilbert, N. Y.; Mrs. Roberta Marker and G. C.

Wright, Ohio; Jesse L. Howard, N. Y.; Mr. and Mrs. R. E. Shanahan, Grand Rapids; John H. Masten, Mich.; W. S. Johnson, Indianapolis; Frank Schaettle, Wis.; J. Ed. Guerther, Ky.; G. M. Packard and Geo. A. Barnes, Mich.; O. W. Burdats, W. Va.; Mrs. Harry W. Hawley and Walter C. Mack, Mich.; Ashton Lee, Mass.; Mrs. Chas. Anderson, Ill.; Mrs. J. V. Burns, Chicago; John G. Schober, La.; I. I. Hamilton, Wis.; H. H. Burns, Texas; Dr. Zero Marff, Chicago.

News and Personals

Rev. and Mrs. J. S. Porter, missionaries of the American Board to Prague, Austria, have arrived at the Sanitarium for a course of treatment.

The Sanitarium family gladly welcomes Mr. M. E. Milner, of Helena, Mont., who is the proprietor of seven large ranches in Montana, and has long been an enthusiastic friend of the Sanitarium.

Miss Ella Thompson, after a brief visit to the Sanitarium, has returned to Chicago, where she is giving lectures in the interest of the Sanitarium health foods and methods, and demonstrating to women's clubs and large department stores.

On Sunday evening a large number gathered in the parlor for a short, bright service which was led by Elder McCoy, who introduced as the chief speaker, Mr. F. C. Laslette, an evangelist, who gave a very cheery and helpful talk on the things that make for righteousness.

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.

Among former patients we notice Mr. E. S. Fowell, a prominent traveling man of Chicago; Mr. J. N. Guenther, a large packer of first-class fresh goods; Mr. W. F. Dibrell, of Bon Air, Tenn., superintendent of the Tennessee mines; Rev. W. B. Riley, pastor of the First Baptist church of Minneapolis.

Among the recent arrivals are Miss Flora Krueger, of Elkhart, Ind., a well-known vocalist; Miss Ella McMahon, of Mt. Pulaski, Ill., county field Sunday School worker, and recently of the Moody Bible Institute; Miss Emma Ridler, of the Deaconess's Home in Cleveland.

Mrs. O. S. Houston and two children, of Fort Worth, Texas, arrived at the Sanitarium last week. Mr. Houston is connected with the Texas State Bank. This is Mrs. Houston's first visit to the Sanitarium, having been sent here by her physician, Dr. C. O. Hook.

Battle Creek is to have a visit from that great benefactor of the colored people, Booker T. Washington. The date set for this visit is March 15, and the Tabernacle has been engaged for a lecture by the distinguished leader. While here Mr. Washington will be the guest of Dr. J. H. Kellogg, at whose invitation he is coming.

On February 4 the Sanitarium had a visit from Mrs. Geo. L. W. Field, a prominent club woman of New York, who was present at the Ypsilanti Normal School and heard the health lecture by one of our physicians, which led her to come to the Sanitarium to investigate the methods and principles. She expressed herself as much pleased with what she saw and learned at the Sanitarium.

The Detroit Federation of Women's Clubs was recently entertained at the home of Mrs. Burgess, who furnished her guests with a vegetarian luncheon, à la Battle Creek Sanitarium. There are thirty-two clubs in the federation. Dr. Carolyn Geisel represented the Sanitarium on this occasion and writes of a very delightful time, the luncheon being declared a most pronounced success by all the guests.

Miss Ruth L. Hemenway, who is famous for her dramatic monologues and lecture recitals, will entertain in the gymnasium on Saturday evening next. She has been an instructor in the department of English for several years in the Illinois Wesleyan University of Bloomington. She has been here upon three different occasions and has received each time a most enthusiastic welcome. A very pleasant evening is anticipated and a full house is confidently expected.

Through previous arrangements made by Dr. Wm. W. Hastings, of the Normal School of Physical Education, a meeting was arranged at the State Normal School of Ypsilanti, on February 3, upon which occasion Dr. A. J. Read spoke before 1,500 young people who were intensely interested and quite a large number of them became members of the Health and Efficiency League. A very earnest wish was expressed by President Jones and others, that Doctor Read

should return and give further lectures on the subject of Hygiene and Rational Living.

Among the last week's arrivals are Judge L. S. Davis, of Homestead, Pa.; Dr. Geo. F. N. Bond, of Yonkers, N. Y., who is making his first visit to the Sanitarium; Prof. Geo. S. Thomas, of the State University in Grand Forks, N. Dak.; Mr. E. T. Welch, manufacturer of Welch Grape Juice, of Westfield, N. Y.; Dr. G. C. Powell, of Peoria, Ill.; Dr. J. W. Knapp and his son from Syracuse, N. Y., who is a long-time friend of the Sanitarium; Dr. R. E. Jones, of Gomer, O.; and Mr. Alfred Lyth, of the *Review of Reviews*.

Among recent arrivals are Mrs. Hawley, of Ann Arbor, a well-known friend of the Sanitarium, who is here for a few days' rest; and Mr. E. R. Shanahan, of Grand Rapids, Mich., manager of the Bissell Carpet Sweeper Company, who is making his first visit to the Sanitarium, accompanied by his friend, Mr. J. Newton Nind, a publisher of Chicago and a long-time friend of the Sanitarium. Also Mr. C. Peiper, a well-known druggist of Charleroy, Pa.; Mr. A. Lee, Sr., and Mr. A. Lee, Jr., manufacturing chemists of Lawrence, Mass.

Hon. Amos Pinchot, of New York, returned to his home the latter part of last week, after an extended sojourn in the Sanitarium. He is a brother of Hon. Gifford Pinchot, who spent some time with us earlier in the winter, and whose representations induced the other brother to come to the Sanitarium to learn at first hand of the work that is being done here. Mr. Amos Pinchot took a course of lessons in hygienic dietary and cookery, and was a close observer of the operations of the various departments, and expressed himself as very much in harmony with what he saw and learned of the methods and principles in operation here.

Dr. Carolyn Geisel, who represents Sanitarium principles upon the lecture platform and is a favorite Chautauqua speaker, is now in Florida attending a series of Chautauqua assemblies, beginning with that at St. Petersburg. She is accompanied by Miss Eva Evans of the nurses' department, who assists in lecturing and demonstrating. From St. Petersburg Doctor Geisel writes: "The Chautauqua is larger than ever. Though this is our sixth consecutive year, the interest in our work is far greater than at any other time. Last year we graduated a class of sixty-three who had been with us three years. This year we shall have a still larger number. A prominent lady is giving a reception to our class at her home.

Rev. and Mrs. Jos. Clark, of the Kongo, have returned to the Sanitarium for a few weeks, previous to their departure to the mission field. Doctor Clark has been much in demand for lectures, and finds everywhere appreciative audiences, who are rejoiced to know that conditions in the Kongo have been so much improved under the new regime. Doctor Clark's letter to the Belgian minister at Washington expressing his pleasure at the changed conditions which he had noticed on his recent tour through the Kongo regions,

was so much appreciated that it was forwarded to the government in Belgium, and Doctor Clark has been requested to visit the ambassador in Belgium on his return to his Kongo mission field.

The Sanitarium Christian Endeavor met as usual on Friday evening. The meeting was in charge of Miss Parker and was exceedingly interesting. The subject was "Serenity," and the leader showed how this peace must be obtained by prayer and trust and cultivated by Bible study. Its possession is evidenced by calmness of mind, self-control, and is manifested in the wisdom that is "pure and peaceable and full of mercy and good fruits." The subject for this week is "Missions in the South of the United States," and is the second evening in a missionary trip around the world. These monthly meetings are in charge of the missionary committee of the Sanitarium Christian Endeavor, and an interesting program is provided for this week.

On Sabbath morning the service in the Sanitarium chapel was in charge of President E. V. Zollers, of the Christian University of Enid, Okla., who gave a most helpful and instructive discourse. In the afternoon in the parlor a large and deeply interested audience gathered to listen to Rev. Graham Lee, who gave some account of his work in Korea and showed what wonderful things had been accomplished in that land by the missions of the Presbyterian and Methodist boards. He alluded with much gratification to the grand work being done by the United Colleges where Presbyterians and Methodists worked harmoniously together for the uplift of the people. The hearts of his hearers were thrilled as they listened to his story of the introduction of the Gospel to the Koreans, and of their ready acceptance of the religion of Christ and their widespread desire to obtain copies of the Scriptures, which had become to them the rule of life.

Through a letter to Miss Elizabeth Neal, from Dr. Florence Holt, we are happy to learn that the doctor and her companion, Miss Rouzee, are greatly enjoying their work in Haswell, Colo. The doctor is trying to care for all the sick people within a radius of thirty miles, and Miss Rouzee is the teacher and preacher for the whole community. Doctor Holt is a graduate of the American Medical Missionary College, and Miss Rouzee will be remembered by the Sanitarium family for her helpful singing and Bible talks. These ladies have established a church of more than sixty members, some of whom drive eight or ten miles to attend service. They also have a Sunday School, a weekly prayer meeting and a Bible institute. In addition to all these duties, these two ladies "keep house" in a little three-roomed cement cottage. Other members of the family are a horse (and buggy), a pet lamb, a small dog, and sixteen chickens. We are glad to learn that both of these ladies are not only accomplishing such a splendid work, but that their health is being fully reinstated. Into this lonely district the Battle Creek IDEA makes its weekly visits, carrying with it the principles of right living and right thinking.

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HOW WORKERS FARE AT THE SANITARIUM

The Good Effects of Healthful Food Are Evident in the Health, Vigor, and Complexions of the Workers

A LARGE portion of the hundreds of people employed by the Battle Creek Sanitarium are housed and boarded by the institution on the premises, and the work of caring for these workers adds no small item to the burdens that are associated with the work. Although no compulsion or arbitrary force is employed to produce conformity to principles, very naturally those who are at all permanently connected with the work imbibe its teachings and fall in with them. Indeed, many of the workers have sought employment at the Sanitarium because of their love for its principles and a desire to promote those things for which the Sanitarium stands. In so large a family of workers there are likely to be some who are not fully imbued with a sense of the importance of right living, but speaking of the helpers in general, in all departments there prevails throughout a loyalty to

(Continued on page three)

A TALK TO WOMEN

By Dr. J. H. Kellogg — Why Woman is the "Weaker Vessel" — Her Lack of Physical Stamina and Vigor Causes of Race Deterioration

IN the first place I must tell you that I believe that women are responsible for much of the disease, and many of the evils from which the race is suffering. They are unwittingly so, certainly not deliberately and intentionally so. Women have become so accustomed to hearing themselves called the "weaker vessel" that they have come to consider themselves as such. The average woman supinely says, "I am expected to be an invalid; I am supposed to be sick and weak, because I am a woman." That is the state of mind with a great many women—of course I am speaking of women at large—not of this audience.

And there is good reason for calling women the weaker vessel, because they are weaker; but I inquire, With an equal chance, why should woman be weaker than man? Why should woman be an invalid? If you should attend a medical convention dinner you would



PORTION OF SANITARIUM HELPERS' DINING-ROOM

be pretty sure to hear the following toast presented: "Woman: God's best gift to man, and the chief support of the doctors." Certainly, if it were not for the medical treatment of women, the great majority of

Doctors Would Have to Go Out of Business.

The care of sick women constitutes at least three-quarters of medical practice; and they ought not to be invalids, for they are ill because of the mischievous customs which are in vogue, and thus unknowingly, unwittingly, ignorantly, they constitute one of the contributing causes through which the race is deteriorating and degenerating. And one of the chief marks of this degeneration is the deterioration of woman herself.

One of the most certain indications of the depreciation of the feminine portion of the race is the increasing number of women who are not able to nurse their children. Dr. Ethan Allen some years ago obtained statistics upon this subject in New England. In 1850 there was scarcely a woman to be found who was not able to nurse her infant; but in 1883 nearly half the women of New England were unable to do so. To-day the situation is no better. This can be so only because the women have degenerated. A woman who can not nurse her child is physically degenerate, and her child will have the same mark of degeneracy upon it, if it is a female child.

Most women who can not nurse their children have inherited defects from their mother who could not nurse her child, or a father who was a drunkard. Bunge has shown that

The Use of Alcohol

on the part of men is responsible for about half the cases in which women can not nurse their children. Alcoholism is a cause of the degeneracy which leads to that condition. Bunge, the great physiologist of Basle, published not very long ago an article upon that question, and it was extremely interesting. He showed that in one hundred women who could not nurse their children, nearly half had drunken fathers, and about one-third had mothers who were not able to nurse their children. In either case, it is degeneracy, whether it comes from alcohol or some other cause.

Doubtless one cause of this degeneracy in women is the

Neglect of Physical Development.

When my mother was a young wife she took the wool after my father had sheared it from the sheep, washed it, carded or teased it, spun it into yarn, wove it into cloth, and made garments for my father and her children. My mother brought up a family of seventeen children, not all her own. When she was a girl of seventeen, she rode forty miles through the wildest woods on a bridle path to a school she was teaching, for she was a pioneer. Not many women can do that now. Not one of her daughters could do what she did, not one of her granddaughters could do it.

Women no longer use the loom, and no longer use the spinning wheel. A large majority of women no longer even do the family cooking. The majority of women do not do much in the way of housekeeping. They

walk about with a carpet sweeper instead of using brooms; they hire their washing and ironing done. Machinery has relieved women of a great amount of tedious work of which we are glad to see them relieved, but which was a blessing in some ways, for the great number of machines has deprived women of the opportunity for muscular work, so they are deteriorating, and largely for lack of exercise.

They are not really deprived of the privileges and blessings of exercise, because being relieved of so much drudgery gives woman the opportunity to go outdoors for exercise. The bicycle was a blessing as long as it was a fad, but because it served as a fad instead of a serious mode of exercise it passed away in a short time, which was a great misfortune. The bicycle did much to emancipate women from the trammels of fashion. They could not ride a bicycle in conventional or fashionable clothing.

Woman Not Always the Weaker Vessel

There was a time when woman was not a weaker vessel. There is no good reason why she should not equal in strength a man of her own height. At the present time, the average woman has just half the strength of the average man. Here in this institution we have tested the strength of over 50,000 persons, including men and women. These tests have shown that on the average women have just half the strength of men. This has not always been so.

One hundred years ago there was an exploring expedition up into the Northwest Territory, and the leaders of this expedition employed some Indians to go with them up a certain river away out in that wilderness of mountains. As they were about to start, the leader of the expedition said, "Who is going to carry this baggage? There are no ponies; we shall have to have some strong young men." Said the old chief, "There are no men strong enough to carry this baggage; we will have some squaws do it." So some squaws were employed to go along with the expedition and drag the baggage over the ground. It was done up in skins, and rawhide ropes fastened to it, slipped over the shoulders of the squaws, and they dragged the loads behind them to the satisfaction of the explorers.

Some Women Are Doing that Still.

Twenty years ago in Paris, I saw three women hitched to a cart, with harnesses upon their shoulders, pulling a cart-full of rubbish that had been gathered up; and a man was driving that three-woman team. I saw in another place a woman hitched up with a dog pulling a cart. The woman pulled in front of the cart, and the dog behind.

I do not defend that as the kind of exercise women ought to undertake, but those women were strong, or they could not have done it. Doctor Zerner, an explorer in the Alps, some years ago found himself down in a deep valley with a large quantity of rare geological specimens. He wanted a porter to carry the specimens out for him. There was no carriage road nor even a donkey path over which a four-footed animal could travel, and everything that came into or went out of that valley had to be carried by human

beings. His specimens were all nicely arranged in a box which weighed somewhere from 150 to 200 pounds, and he said he must have a porter to carry the specimens. The men with whom he was talking looked at him dismayed, and said, "There is not a man here who can carry such a heavy weight as that. If you want that weight transported, you will have to get a woman." So a woman came along, the box was lifted on her head, and she carried it over the steep mountain paths and landed it safely on the other side with no damage to the box or to herself.

In Naples, some twenty-three or twenty-four years ago I saw a couple of men tugging away at a big case on the pavement. The men lifted it up, and I expected to see them marching off down the street; but instead of that a little Italian woman stepped under the packing case, it was balanced upon her head, and away she went, with that heavy packing case on her head, and left the men behind.

When Tasmania Was Discovered,

the women were altogether the most active, nimble and vigorous of the people on that island. They were as large as the men, and that is true of nearly all savage tribes. The Mongolian women are about the same size as the Mongolian men. In Tartary the men and women are of equal size and equal strength. It is said the women are so robust that you can hardly tell a woman from a man. They are so vigorous and masculine in appearance, it is only by dress they can be distinguished. Their features are entirely similar; they are equal in size with the men, and this is true of most savage nations. In one of the African tribes the women are more vigorous than the men. They go out in the forest and trap the wild beasts, and destroy them, collect the palm cabbages, the dates, and wild fruits, and everything they need for food; they cultivate the gardens, and the men stay at home and take life easy, and if the husband does not do the housework properly the wife can get a divorce from him.

Women Are Equals with Men.

There is no reason why women should regard themselves as inferior to men. Some women feel restive because they have not equal rights with men, and the reason is they have allowed themselves to deteriorate physically and to be deprived of their standing and dignity, so that they have come to live a sort of parasitical life. They feel that they have not the physical vigor to care for themselves, and they must have a protector, some one to care for them, so they acknowledge their weakness.

In non-Christian lands women are mere chattels. If a man wants a wife, he buys one. A man from Africa told me some time ago that he would inherit his father's property. I said, "Of what does it consist?" "Well, so many cattle, so much land, so many houses, and two hundred wives." I said, "What in the world will you do with your father's wives?" "I will sell them, of course, and buy some more." This custom does not prevail exactly in civilized lands, yet women are sometimes sold in Christian lands. Mothers put their daughters on exhibition for sale to some foreign prince or lord, or

titled man; or to somebody who has money. This would not occur if women had more power, more vigor, more physical ability, and more endurance,—the full amount that they are entitled to.

Through the inability of women to nurse their children, there are

Millionaire Manufacturers of Infant Foods.

Not one of the great factories of infant foods should exist. It is because the maternal fount is drying up. Mothers have become incompetent to furnish food for their children, and commercial men who have no idea but money making, have gone into the business of making food for babies. This is certainly a most extraordinary state of things. In large cities there are places where cows' milk is modified, and carts go around and peddle modified milk for babies whose mothers are not able to provide them with their natural sustenance.

This thing means more than simply inconvenience for the child that is not properly fed. The child that has been fed on artificial food has only one chance to live, where the infant fed on natural diet has six chances to live. The mortality of bottle-fed infants is six times as great as that of infants that are breast-fed. That is a serious matter. What shall I say, then, of the mother who could nurse her child, but simply refuses to do so? Many a mother has murdered her child by refusing to give it the food that belonged to it. Cows' milk is not adapted for human infants; it is adapted for bovine infants. A baby cow or calf is properly fed on cows' milk; but cows' milk is absolutely unfit for young human infants.

Right along that same line,

We Find Another Evil.

Dr. Ethan Allen some years ago pointed out a most alarming fact, that while among people who live in a simple, natural way, where the women work and are strong like their husbands, the average number of children to the family is four or five; while the average number of children in New England families is only one and a half. Go back one hundred years, and you will be amazed at the long list of children. There were families with twelve, seventeen, twenty children. There was rarely a family that did not have at least six or eight children until we get down to the last fifty years. Since then there has been a tremendous dropping off. There is no question that the reproductive power of the race is tremendously weakened among civilized people, and this is one of the most certain indications of race deterioration. For this women are not altogether responsible. Alcohol, tobacco, and civilized living, getting too far away from nature, and disease,—all these things are responsible for it.

WORKERS AT SANITARIUM

(Continued from page one)

the teachings and practices of the institution and to those features which have made the Sanitarium famous as a "University of Health."

A visit to the dining-rooms, where at the present season of the year about four hundred helpers, including doctors, nurses, clerks, mechanics, housekeepers, and general attendants, are fed three times a day, will be of interest. In the summer the family is considerably larger. The kitchen and dining-room are in the lower story of the building known as East Hall. On the first page of this paper will be seen a picture of a portion of the dining-room while the family is at dinner. The most of those in sight are nurses, distinguished by their white caps and uniform dresses; and the observer will notice at once that they all appear to be well cared for, contented, healthy, and happy. There is no smell of flesh about the place, and flesh never comes upon the tables. But the place of that class of foods is well supplied by other and more wholesome foods.

The bill of fare provided for the main dining-room is practically followed here, at least in the more substantial features. There is an opportunity for a wide choice of viands, embracing different vegetables, cereals, breads, fruits stewed and fresh, with nuts and relishes of various sorts.



HELPERS' KITCHEN

The boarder enters the serving-room, which is between the dining-room and the kitchen, and, taking up a tray, proceeds to the serving counters, and from the bill of fare selects the foods he requires. A price is placed upon each portion, which is punched from his ticket at the door of the serving-room. He selects his place at one of the tables, where he finds plates, and implements for eating. Finishing his meal, he gathers up his soiled dishes and carries them to the dishwashing machine, where he leaves them.

Each employe is given ten dollars' worth of food tickets each month, and this by careful observation has proven to be sufficient for the wants of the individual, and in nearly every case there is an unused portion of the ticket at the end of the month. He may quickly consume his ticket by eating the more expensive foods, or he may, by using the plainer foods, have a credit due him at the close of the month. This plan gives eminent satisfaction to the workers, and is

equally gratifying to the managers, who observe very little waste of foods, because no one takes more than he is willing to pay for, and yet he is entitled to all he needs.

The effect of this kind of diet is plainly evident in the appearance of the boarders. Their faces are free from pimples, their skins are clear and healthy, and their carriage is vigorous and full of animation.

Jacob Riis visited our institution some time ago, and as he was leaving, said to the superintendent, "When I came here I looked at your helpers, and it seemed to me they were a bloodless lot of people, but now I see I was mistaken; it was because they are clean." And that is the truth. Their complexions are clear, and really, a cleaner lot of people altogether than the Sanitarium family of workers it would be hard to find.

As indicating the character of the food furnished at the helpers' dining-room we present a few figures from the storekeeper for one month:

Thirty-five barrels of apples.

One hundred and seventy gallons of apple juice.

Fifty-seven bunches of bananas.

Three hundred and fifty pounds of figs.

Two hundred thirty-two pounds of dates.
Two thousand four hundred quarts of canned fruits.

Five hundred dozen eggs.

Three hundred and twenty-four pounds lettuce.

Fourteen cases oranges.

Three thousand seven hundred loaves of bread.

One hundred and eighty-five bushels of potatoes.

One thousand six hundred pounds butter.

Two thousand two hundred pounds cream.

The above are some of the principal items but by no means include all that is furnished to the tables, which are bountifully supplied with the very best of grains, fruits, nuts, dairy produce and vegetables.

With such a diet, carefully prepared, the Sanitarium workers thrive well and are remarkably free from sickness. If unfortunately any are ill, they receive the very best care and treatment that skill and experience can produce.

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IT PAYS TO BE GOOD

THERE are very few people so lost to any sense of decency as not to hold virtue and rightdoing in admiration. Everybody knows from experience and observation that the way of the transgressor is hard. But after all, there is an innate enjoyment of evil-doing lurking in the average human being. The man who wrote the Proverbs may have been speaking from personal experience when he wrote, "It is as sport to a fool to do mischief;" and also to some people who do not call themselves fools.

But the momentary tickle that pleases the fancy of the wilful transgressor is not at all in the same class of enjoyment that invariably accompanies rightdoing. The consciousness of having lived a pure, upright and true life is a constant source of satisfaction with which the passing pleasures of transgression can never come into comparison. And in the practical results there is still greater reward for the one who chooses to do right and endeavors to do it in all things. Transgression has its consequences as well as obedience, and effects inevitably follow causes in either course.

The habit of self-denial has some advantages for those who practice it, even as a habit, for it serves to place the higher and better elements of our nature in control over the baser elements. And in matters which relate to moral and physical character self-control becomes an absolute necessity. The ability to say *no* to that which is unwholesome or mischievous, and to adhere to the denial, is a noble trait of character, one of which we should always be able to avail ourselves when tempted to do what we know to be harmful or disreputable in any manner.

The ability to control one's own self is a high achievement, requiring greater heroism than the taking of a city. The greatest conquerors the world has ever produced have fallen in utter defeat and humiliation before their own passions and appetites. Able to control armies, and to rule nations, they could not stay the onrush of their own pas-

sions or deny the demands of their own appetites.

The man or woman who has his or her own body under control is a king or a queen, and is within reach of the greatest achievements. It pays to do right; we can not afford to surrender to wrong.

DOCTOR WILEY SPEAKS HIS MIND

PROFESSOR H. W. WILEY, chief chemist of the Department of Agriculture, Washington, spoke at a club luncheon in New York recently, and took occasion to speak about some of the habits of the American people in unmistakable terms. "We are the drug-habit nation," he is quoted as saying; "and alcohol is but one of the drugs that are being used to excess. The medical profession is doing all it can to save the nation, but it is not doing enough. Personally I shall be glad to see this country have universal prohibition, not only of drugs, but of all forms of liquor."

Later in his address, as reported through the press, we read the following stirring words, every one of which deserves candid consideration:

The most indifferent kind of indifference is the indifference of the average man toward his health. The efficiency of every human being depends upon the state of his health. What steps do the people of New York take to avoid death, except to be careful in crossing a street?

The question of the public health I consider to be the greatest of our national problems, yet it occupies little attention compared with what is being done in the way of conservation of other resources, such as coal fields, the forests, and water supply. I would rather have good health than own the largest coal field in Alaska. Even in the matter of dollars and cents, the public health is worth millions more than the country's coal supply. It costs more to kill men and take care of them after they are dead than it does to build all the battleships in the world.

Why should men die at all, except to make way for younger men? My opinion is that we are even better than the younger men. The best way to do is to so obey the laws of hygiene and preserve our vitality that we die all at once instead of by piecemeal.

In order to improve public health we have got to devise a scheme to decongest the great cities. We have got to live under better conditions than are possible in cities to-day. Manufacturing establishments have no business in a city; they should be taken out in the country, where they will be near their raw material supply. The country is big enough to let every workingman have a plot of ground with flowers, vegetables, and plenty of fresh air.

The people are flocking by the thousands to the cities from the country and exposing themselves to all the dangers of city life. It is also a great problem how to feed these large communities. The problem of the food supply is intimately related to the public health. It gets more complicated every day. The food has got to come great distances, and it can not be as pure as if it were grown

close at home. No food products are improved by preservation. These matters lie at the very foundation of public health. The human machine can not do good work if the fuel is bad.

If people go on eating bad food there will come a time when their organization is going to break down. Age is not a matter of years, but of the limpidity of the protoplasm. If you keep your protoplasm young there is no reason why you can not live to be as old as Methuselah. The only way to keep young and strong is to eat wholesome food. It will hurt you in the long run if you do otherwise. Every man who indulges too much in cigars and liquors simply limits the years of his life.

It would be better for this country if there were no alcohol in it. The medical profession doesn't supply it as it once did. I shall be glad to see the day of universal prohibition. Even the German Emperor has warned his army of the dangers of beer drinking. It would be a great benefit to humanity if all the saloons and breweries were closed up.

But alcohol is only one kind of drug. There are plenty of other drugs that are undermining the health of the community. We are a drug-habit nation. We take something for every little ailment. All drugs should be used properly and under proper control. The indiscriminate sale and consumption of drugs in this city every day does as much as bad food to undermine the health. Yet I do not believe in the starvation theory. Plenty of nourishment is necessary to keep away disease. Men who are underfed and undernourished, and whose vitality is low, will be easily infected if they come into contact with disease.

LIFE AT THE SANITARIUM

How shall one pass the time at the Sanitarium? This is a question which many who contemplate a visit to the institution in pursuit of health are led to consider. To relieve the minds of such, permit us to remark that it is the purpose of the Sanitarium physicians to keep their patients so busily employed in getting well that they will have little time for anything else. The daily program covers the entire day from six in the morning till nine at night. And between these hours on the dark side the people are supposed to be honestly asleep. With an eye-opener at six in the shape of a cool shower followed by a vigorous rubbing, or a similar treatment in the rooms of those unable to go to the bath-room, the patient takes a brisk walk in the open air, on the verandas or walks, or in the gymnasium takes "breathing exercise" under a director. Of course, no portion of the program is compulsory, and it is often necessary to adapt it for a time to the strength of the patient.

Family prayers follow at seven-twenty in the parlor for the benefit of those who choose to attend. Breakfast comes at 7:40, and at nine o'clock the gymnasium is open for general exercises and marches, in which all are invited to take part. At 9:30 treatments begin in the treatment rooms, and these occupy the most of the time till noon. An hour for rest then comes before dinner, and at one o'clock that delightful task comes on. In the afternoon there are walks, rides, lec-

tures, demonstrations, or reading and visiting until treatment hours at 4:30. Supper comes at six, and at seven is gymnasium hour again. At 7:45 the evening entertainment begins, consisting of a lecture, concert, or some diversion that is instructive or merely entertaining.

The social life of the Sanitarium is cordial and kind, and free from inconvenient conventionalities. People are not on dress parade, the family is democratic, and all feel for the time that they are indeed members of one family. The Sanitarium undertakes to exclude as far as it can the air of the hotel, and to give the impression of the home instead. Of course some are for a time confined to their rooms, where life is made as pleasant as possible. The conservatories supply flowers, and the libraries connected with the institution supply books and magazines.

Time is not allowed to hang heavily on the hands of the guests, and pains are taken to keep homesickness as far away as possible.

various religious and humanitarian associations. Special facilities are afforded by the affiliation of the school with the Battle Creek Sanitarium for the study of all the various phases of hygiene. The student not only studies the theory of public, personal, school, and domestic hygiene, but is obliged to live in an atmosphere where without theoretical study it would be impossible to escape a comparatively thorough knowledge of how to live. In addition to the training given to the physical director in the ordinary school, the students are privileged to learn the various uses of water and electricity in health and disease, mechanotherapy, massage, and all forms of treatment, mechanical and thermal, and are provided with an invaluable opportunity for experimental work in dietetics, both in the study of their own individual nutrition and in the study of the subject as a whole.

This school is not a money-making institution. It is established to meet the urgent call

for experienced physical directors which comes from all over the United States, and its work is a public benefaction. As no expense is incurred for gymnasium apparatus, laboratory or other facilities provided by the Sanitarium, the expenses of the school are exceedingly low, and the ordinary living expenses of board and room are put at actual cost. In addition to this, every opportunity is afforded the student for self-support, as there is always room for intelligent service in connection with the Sanitarium.

The work at large is appealing for high school graduates, normal school graduates, for college graduates and for medical college graduates. No education is too high for this profession. The place can always be found for the man. Surely when professions like medicine and law are so overcrowded, the attention of the young people of good training, right principles and ambitions should be drawn to this profession in the very strongest way.

THE PHYSICAL DIRECTORSHIP AS A PROFESSION

WM. W. HASTINGS, PH. D.

No other profession so immediately rewards with a fair remuneration as does the profession of physical director, and in no other profession are there so many positions awaiting men and women. The demand for efficient physical directors is constantly increasing as the movement spreads. In fact, it is impossible at the present time to fill all the positions awaiting trained men and women.

The last quarter of a century has demonstrated that this is a permanent profession. It has demonstrated that the greatest demand to-day is not simply for "crack" gymnasts, acrobats, and athletes of the sporty tendencies, but for all-round young men and women of clean life, wholesome habits, sound judgment, natural leadership, executive ability, and thorough education. No one is too well trained for this work. There are more positions and better positions at the top than can be filled with well-trained men.

Salaries have increased in this profession at least fifty per cent during the last ten years and are destined to increase as much more in the next five years because of the great demand for physical directors for playgrounds. It is stated by Dr. Henry S. Curtis, playground lecturer, as a result of his observations throughout the country, that if the present rate of increase in the number of playgrounds continues, there will be well organized playgrounds in 800 of our leading cities within three to five years. That is to say, all cities of 5,000 or over in population will have well-organized playgrounds. The demand for physical directors is increasing as rapidly in the public school system, so that the demand for physical directors is many times the supply.

With a knowledge of this fact in mind, there has been organized in connection with the Battle Creek Sanitarium, a Normal School of Physical Education for the training of teachers for educational work, Sanitarium work, and work in connection with

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Each year comprises thirty-five weeks and an eight-weeks Summer Course.

By affiliation of this school with 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, \$40. 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.

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 topics.

Q. Has there ever been made any exhaustive scientific study as to whether acid fruits eaten at the same meal with starchy foods are chemically harmonious in the stomach?

A. Yes; we have made very exhaustive studies on that subject. Some years ago we kept our laboratory for several weeks in experiments upon this subject. My attention was called to the matter by some experiments made by Sir William Roberts, of England. He made some very interesting experiments on vinegar, and found vinegar interferes greatly with starch digestion; that a teaspoonful of acetic acid would absolutely prevent the digestion of starch taken at the en-

tire meal. And he found that oxalic acid, the acid found in pieplant, was still more powerful in preventing starch digestion. I found, in repeating his experiments, and measuring the quantities down to a fine point, that one part of oxalic acid in 10,000 parts of water would stop starch digestion entirely. Acetic acid, one part in 2,000, would prevent the digestion of starch. I found that pure lemon-juice would also prevent starch digestion, and very sour apple-juice if very concentrated would prevent starch digestion; but when the lemon-juice was diluted, as it is in lemonade, or when the juice of the lemon was mixed with a whole meal, it had no discernible effect. There are certain conditions of inflammation in which the mucous membrane is particularly sensitive to acids of fruits, and in such cases there is a burning and smarting after the acid is taken into the stomach, because of this peculiar sensibility, which is not a normal condition at all. In such cases it is necessary sometimes to refrain from the use of acid fruits for some time until these sores are healed; but by and by acid fruits can be eaten again. By confining the diet to bland things and to such non-acid fruits as very ripe bananas, and pears and other fruits of

allied character, this difficulty will by and by be overcome; but acid fruits never produce fermentation in the stomach.

Q. Do you use strychnia in myocarditis? If not, why not?

A. Nobody believes that strychnia is curative. Strychnia is simply a whip; it does not cure myocarditis, or anything else for that matter; it is only a stimulant. If we ever have used strychnia, it has been only in a special emergency where its effect is wanted just for a moment. We make no use of remedies of that sort with the expectation that the disease may be cured by them, but only as a palliative perhaps.

Q. What is your opinion as to the food value of goats' milk?

A. It has a food value about the same as that of cows' milk, as far as the nutritive material is concerned; but it is much harder to digest than cows' milk. It contains more casein, and makes larger and harder curds than cows' milk, and is much less like natural mother's milk; so it is not adapted to human beings.

Q. What causes skin tags, and how can they be cured?

A. They are generally little excrescences that grow out something like warts, and the only thing necessary is to clip them off. They are not likely to grow again.

Q. Should one take muscular exercise with a limb affected by neuritis?

A. Not very much. Rest is necessary for the cure of neuritis and neuralgia. Massage is better than much exercise.

Q. What is the best food for one to eat whose stomach does not empty fast enough, and the food for hours feels like cast-iron in the stomach?

A. The best food for such a person is rice. There is nothing in the world equal to rice in digestibility in that condition of the stomach. Rice is a bland food, and contains the smallest amount of the earthy or alkaline salts of any food known; so is one of the most wholesome of all foods.

Q. Are two glasses of water too much to drink at one time two hours after a meal?

A. I would not advise to drink it all at once, but drink half a glass at a time, then after a few minutes another half glass, and so on; but too much water taken into the stomach at one time will have a tendency to stretch the stomach by overweighting it.

Q. Speaking from the sanitary point of view, how far should conversation be carried at the table?

A. It should not be carried far enough to interfere with good chewing. I do not think we ought to go so far as was recommended in a magazine article I was reading some time ago. The writer said that when one sits down to the table to eat, he should not allow his attention to be distracted in any way from the solemn business in which he is about to engage. Eating, said the writer, is really a very serious matter. Our bodies are made of what we eat, and each morsel that enters the mouth should be chewed and swal-

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 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.

Good reading for the Home Circle; Helpful, Interesting, Instructive. Fifty cents per year. To Foreign Countries sixty cents. Sample copies free. Note the Combinations offered above.

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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 occur. The next class will be organized the first of April, 1911. For full information address

Sanitarium,

Battle Creek, Mich.

lowed in such a way that we shall receive the greatest possible benefit from it; and so we should not allow our minds to be diverted with other things; we should take great care in selecting the right kind of food, to eat it in exactly the right kind of way, and in the right quantity, to chew it exactly right, and we should not allow any conversation to divert the attention from this matter; but we should give our whole attention to this one question of eating, etc. I think that is going too far. When one eats in that sort of way, his poor stomach is likely to get into terrible stage fright. When one goes to the table he should select his bill of fare, then forget all about it. Good chewing soon becomes a habit with practice.

Q. Since cayenne or black peppers are injurious to the system, is it not all right to take pepper in the form of red peppers and green peppers?

A. Pepper is pepper; it doesn't make any difference whether it is black or green or red; and the thing that is objectionable about the pepper is not the color at all; it is that hot, irritating, burning, blistering essential oil which is in the pepper. Pure oil of capsi-cum is almost as dangerous, as fatal to animal life as prussic acid. Peppers have nothing at all to recommend them. They are evil, and only evil.

Q. Should the wax in clover honey be eaten?

A. It has no food value whatever. It doesn't do any harm, probably, to eat a little of it.

ARRIVALS

THE list of guests who have registered at the Battle Creek Sanitarium for the week ending February 26 is as follows: Mrs. G. F. Sanborn, Ore.; Frank Elridge, Rochester; A. L. McDonald, O.; R. P. Cook, Mich.; C. Daly, New York City; J. H. Struble, Mich.; Frank P. Robinson, Mich.; W. A. Mansell, India; Anthony Lehmann, Chicago; Lewis Wert, Ind.; Wm. Fairburg, New York City; Bradford Smith, Mass.; Georgia L. Ely, Mich.; A. H. Steinmetz, M. D., Philippines; W. A. Flowers and Myron Rose, Ill.; Mrs. John B. Busch and Miss Lilly Busch, Mo.; J. B. Brown, Mich.; J. Thomson, Milwaukee; Agnes E. Saxe, India; Mrs. Horace Tredway, O.; J. F. Henderson, Pittsburg; Wm. Hauges, Ill.; W. R. Crackel, Ind.; John T. Gull and wife, Mrs. Bessie Winde and Mrs. Adelia Pfeifer, and Peter E. DeVries, Mich.; Mrs. D. W. Place, Ind.; Mrs. B. M. Jennings, Mich.; Sophia Stocking, Mass.; Margaret C. Weber and Mary A. Weber, O.; L. M. Miller, Ind.; Dr. D. C. Hughes, O.; John Stonecliffe, Mich.; Jno. W. Way, Tenn.; Mrs. A. H. Smith, China; Otto C. Bormann, Ind.; Mr. and Mrs. Jas. Redfern, Minn.; A. W. Thomas, Ill.; O. M. Husted, Ark.; Miss L. M. Ridge, Wash.; Jas. A. Beyer, O.; Miss E. H. Day, Va.; Mrs. C. F. Calkins, Okla.; E. L. Haring, Ind.; Rev. S. Margoliet, O.; Mrs. Manning Rogers, Ind.; Jos. Clark, D. D., Africa; E. S. Bickford, D. D., O.; Mr. and Mrs. Stoddard Jess, Calif.; R. R. Bailey, Minn.; Mrs. Mary Mills Spaulding, Wis.; Alice E. Peters, Ia.; Mrs. J. A. Dickler, Wis.; Mrs.

H. H. Everard, Detroit; Geo. J. Smith and Milton Smith, Ill.; J. Smalley and wife, Chicago; D. A. Morris, Miss.; L. J. Kempster, S. Dak.; Mrs. Carl Meyer, Buffalo; S. J. Peterson and G. S. Donaldson, Ia.; Ruth Hemenway, Ill.; W. Richards, Indianapolis; Ralph Richards and J. H. Richards, Kans.; H. E. Fay and Julia E. Fay, N. H.; Daisy B. Stuffer, Boston; M. A. Fememan, N. H.; Susan Paul, Ross D. Clark, Mich.; Chas. C. Ware and wife, Toledo; W. E. Ware and wife, City; John K. Hubbard, Porto Rico; Frank Courtney and wife, Cleveland; A. B. Wagner, Mich.; J. T. Earl, Ind.; W. Walker and Harry E. Chase, Grand Rapids; F. M. Husband and Juanita M. Husband, Pa.; Arnold Ryan, Detroit; Mrs. B. D. Holbrook, Ia.; J. W. Schillner, Chicago; Mrs. Edith Steinmetz, Philippines; Albert E. Awde, N. Y.; Geo. Neal Phail, Mich.; E. F. Gilbert, N. Y.; B. A. Luming, Fla.; H. W. Hoops, New York City; Mrs. J. H. Sokol, Ia.; J. S. Lincoln, Kalamazoo; J. J. Brin, J. V. Burns and B. J. Burns, Chicago; Mrs. Sam'l Pursglove, O.; Fred Van Orman, Ind.; O. B. Potter, Buffalo; Mrs. Carrie Browning and Marjorie Browning, Mich.; Mrs. Chas. C. Wilson, Chicago; Mrs. Henry E. Harman, Ga.

News and Personals

Mr. and Mrs. E. F. Gilbert, of Jamestown, N. Y., were visited by their son, Mr. A. Gilbert, who spent several days at the Sanitarium with them.

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.

Mr. Stoddard Jess, a prominent banker of Los Angeles, has returned to the Sanitarium with his wife for a course of treatment. Mr. and Mrs. Jess are warm friends of the institution.

Mrs. John Busch and Miss Lily N. Busch, of Washington, Mo., have returned to the Sanitarium for a period of rest and recuperation. Another recent arrival is Mrs. C. F. Calkins, of Ponca City, Okla., who has returned for a course of treatment. Also Mrs. Henry E. Harman, of Atlanta, Ga., a warm friend of the Sanitarium.

We are looking forward to a visit from Dr. William E. Strong, of Boston, editorial secretary of the American Board of Commissioners for Foreign Missions. He is expected about March 3, and his missionary friends are holding in readiness a hearty greeting in which the Sanitarium will certainly join.

Miss Ella Devine, a graduate nurse, has returned to the nurses' department of the Sanitarium, after a visit to her home in Wisconsin. Also Miss Ida Lahey, who has returned from Fargo, North Dakota, where she has been doing duty for one year in the private sanitarium under the care of Doctor Cavanagh. Miss Lela Devine, one of the Sanitarium nurses, is still working there.

Word has reached us of the death of Miss Madge Rogers, which occurred at a sanitarium in St. Helena, California, on a recent date. Miss Rogers was for nearly twenty years identified with the work of the Sanitarium, much of the time acting as visiting nurse for the dispensary. She is remembered very affectionately by the Sanitarium family and by many of the poor of this community to whom she ministered at the expense of her own health.

During the recent visit of Mr. Goodwin Brown an interesting dinner party was arranged, consisting of Mr. Brown, Mr. Amos Pinchot, also a lawyer from New York, Dr. Arthur H. Smith, of China, the famous writer and authority on that country; Mr. D. K. Cornwell, a retired business man of Chicago, who now makes the Sanitarium his home; and Dr. J. H. Kellogg, superintendent of the Sanitarium. All are ardent reformers, endeavoring effectually to give an uplift to the human family.

The Executive Board of the Michigan State Nurses' Association, also the president of the Nurses' Registration Board, and the chairman of the State Red Cross Society, met at the Sanitarium for a board meeting recently. Considerable business was done in the interest of the profession, and the date of the next annual meeting was set for May 3, 4 and 5, to be held in Jackson. It is hoped that there will be a large attendance of Sanitarium nurses and the nurses of the city at this annual meeting.

One of the Sanitarium physicians recently impressed upon the mind of a departing pa-

tient in a very concise manner the importance of a careful observance of what he had learned while here. The departing guest called out, "Good-bye, Doctor, I am off for home; I am perfectly well now." Said the doctor, "Well, I hope you have your mind fully made up to avoid those habits of eating and drinking which brought you here an invalid." "Well, no; I feel so well now I believe I can just eat anything again." "Oh," said the physician, "then it is 'au revoir, but not good-bye!'"

Miss Isabel McIsaac, interstate secretary of the National Nurses' Alumni Association, who has been for eighteen years superintendent of the Illinois Training School at Cook County Hospital, and is the author of several nurses' text-books, is traveling through the different States in the interest of the progress of the nursing profession. Miss McIsaac will speak to the nurses of Ann Arbor on March 16 and to the nurses of Battle Creek on March 17 at 2:00 p. m. in the Sanitarium chapel. All nurses in the city are earnestly requested to attend her lecture on that occasion.

Miss Ruth Hemenway gave one of her dramatic monologues in the Sanitarium parlor on Saturday evening. Every available seat was taken and the large audience listened with a good deal of interest and enthusiasm to her rendering of a sketch written by Mr. Joseph McGill Patterson, entitled "The Fourth Estate." The story dealt with the conversation and business carried on in the editorial office of a leading newspaper, illustrating the way in which corporations corrupt justice in this country. The frequent applause showed that Miss Hemenway's "points" were thoroughly appreciated by her audience.

The Social Hour on Wednesday afternoon was much appreciated by the large audience which gathered in the parlor and spent an enjoyable time, listening to music and stories of travel, contributed by the Sanitarium guests. Mrs. Busch rendered several very fine numbers at the piano, and Mrs. Kruger charmed her hearers with her vocal selections. An unusual number of good stories were contributed by Doctor Kelly, Doctor Clark, Doctor Steinmetz, Dr. Graham Lee, Mr. DeVries, Rev. Mr. Deter, of Brazil, and Mr. F. C. Laslett, who contributed a most amusing sketch, entitled "Life's Ups and Downs." The good nature of the guests and their willingness to contribute to the enjoyment of others is much appreciated.

On February 14 an enthusiastic audience gathered at the Central Normal School of Mt. Pleasant, Mich., to listen to a lecture on "Hygiene and Rational Living," by Dr. A. J. Read, of the Sanitarium. The hall was packed with a large audience, composed of students and faculty and a large number of senior students and teachers from the public schools. The lecture was given without stereopticon views, but the closest attention was paid by those present and a general wish was expressed to associate themselves

with the Health and Efficiency League movement. A very earnest and cordial invitation was extended to Doctor Read to give two illustrated lectures at the Summer School.

An interesting feature on Tuesday evening was an exhibition of some of the gymnasium work which was given by the patients and for the patients. The gymnasium was filled with a large and appreciative gathering of spectators and the applause was both frequent and hearty. The special features on the program were a grand march, balance steps, serpentine march, and other exercises for the development of health and vigor. There were also games of baseball and volleyball, between two teams of men, captained by Mr. Doremus and Mr. Ralph C. Davis. Mr. Kellerstrass presented the winning team with a trophy, consisting of a banner quite unique in design and workmanship.

The Sanitarium Nurses' Alumni Association held its regular monthly meeting in West Hall parlor on Thursday evening, February 23. After the usual business, Miss Youngberg, who has recently returned from a post-graduate course at Bellevue Hospital, of New York, gave a very interesting account of her experiences. Doctor Case gave a lecture on the use of the X-ray in the treatment of disease, and also kindly offered to give the Alumni Association a practical demonstration of the use of the X-ray apparatus. The program committee has planned a most profitable and instructive program for the coming season, which is largely made up of lectures from the leading members of the Sanitarium medical staff. The meeting of March 21 is to be held in West Hall parlor and will be addressed by Doctor Kellogg on the subject, "Mental Therapeutics."

The Christian Endeavor meeting was held as usual on Friday evening. The meeting was led by Mr. Gordon Clark, the subject being, "Missions in the South." The missionary committee reported that the native nurse in India, who is supported by the Sanitarium Christian Endeavor Society, was doing excellent work. Mr. McKersie spoke on "Life and Work among the American Indians," and Mr. W. C. Kellogg and Mr. Martin gave a good description of the mountain whites. Mr. Capron gave a sketch of the progress of the Negro in the last fifty years, and an outline of the life of Booker T. Washington was given by Miss Marjorie House. Mr. Clark was well informed on his subject, and the meeting was one of great interest, in which several members took part. Special music was contributed in the Christian Endeavor meeting by Miss Stump and Mr. Rice, who sang a beautiful duet, and Mr. Ralph Devault, who gave a fine rendering of Sullivan's Lost Chord, as a cornet solo, accompanied by Mr. Schively on the piano. The meeting for next week has for its subject, "Moses, the Third of the Series of Great Lives." It will also be the consecration meeting, and it is hoped that a large number will be present.

THE BATTLE CREEK IDEA

VOLUME IV
NUMBER FOURTEEN

\$1.00 A YEAR
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PUBLISHED WEEKLY AT BATTLE CREEK, MICHIGAN. MARCH 10, 1911

Sleep and Insomnia

Dr. W. H. Riley, in a Sanitarium Parlor
Lecture, Speaks on the Phenomenon of Sleep and its Causes

SLEEP is one of the very important functions of the body. Sleep is the best form of rest, and all animals that have a highly organized sensitive system must at frequent intervals give themselves over to sleep. During sleep there are constructive processes going on in the body by which the tissues are built up, and the wear and tear that has

(Continued on page three)

TAKEN FROM THE QUESTION BOX

Sundry Queries Propounded by Patients,
with Ready Responses by the Sanitarium Superintendent

QUESTION. Would a stomach prolapsed into the pelvic cavity be benefited by an abdominal supporter?

ANSWER. Yes, indeed.

Q. What is the best treatment to arrest hardening of the arteries?

A. The first thing is to reform your diet,
(Continued on page four)

The Battle Creek Idea

How the Phrase Originated and What it
Implies—Plea for the Simple Life—
Portion of Lecture at Sanitarium
Parlor by J. H. Kellogg, M. D.

I AM going to talk to you to-night about the Battle Creek Idea. I went to Madison, Wisconsin, some years ago, to give an address, and Professor Ely, of the political economy department of the State University, in introducing me announced that I was to speak, and that no subject had been given me. "But," he said, "I believe Doctor Kel-



INTERIOR OF THE SANITARIUM LAUNDRY

logg is going to talk to you about the Battle Creek Idea."

What is It?

In the first place, the first cardinal principle of the Battle Creek Idea is that the natural way is the right way. That is, the natural way of living, of eating, the natural way of conducting ourselves in relation to our environment and our habits of life, in these things the natural way is the right way. And I may say, the next principle is, It pays to be good. And it is just as natural to be good as it is to breathe. I do not believe in total depravity. I may be regarded a heretic in that particular, but I am inclined to think that heretics in that respect are getting to be very common in these days.

The natural laws in relation to our being are not easy to find when we study man in his civilized and artificial conditions, because, as the Bible says, man has "sought out many inventions." And these inventions are not by any means all good ones. When we find men living in natural, normal conditions, we find their habits are extremely simple—simple foods, and simple ways,—everything is simple. Life is not complicated as it is in our civilized communities. The life of a squirrel, for example, how simple it is so far as its physical wants are concerned, how easily they are satisfied. The life of a wild horse on the prairie, or a buffalo, or any other wild creature—how simple it is. They live in the open, fresh air. They find their food presented to them at the hand of nature; they take it as presented, they are satisfied, and they are well. Wild animals are, for the most part, healthy, and free from disease.

And Wild Men Are Healthy.

Domestic animals and domesticated men are full of disease, and the more thoroughly domesticated they are, the more thoroughly civilized, the more diseased they become. Diseases have multiplied right along with civilization. There is something unnatural about our modes of life, and we must make a change if we hope for better things. If we find ourselves ill, because of our perversions, then we must change our habits and reorganize our mode of life, if we desire to get any better and to remain any better.

This is quite important, because so many people think a visit to the Battle Creek Sanitarium will make them all right again, and then they can go back to their old ways. A man said to me some time ago, "I am prepared to do anything you will tell me to do; I will eat anything you want me to eat; I will even eat sawdust; but at the end of six weeks I am going home; and when my time is up I want to be able to go home and eat anything that I want to eat, and do anything I want to do." I replied, "I am not interested in your case at all. You want me to coach you up to your old sins; you want to go back to your old habits again, and you want me to help you to violate the laws of health, which I consider to be God's laws. You might just as well ask me to coach you up to burglary or something else. I do not propose to do it. If I undertake your case, you must promise to turn over a new leaf, to reform. No more tobacco, no more liquor, you must make a thoroughgoing reform; then

we will do all we can to build you up and help you to get well."

The Experience of the Average Person

who comes to the Sanitarium, is that he gets considerably better while he is here, and when he goes home he finds he is a great deal better than he thought he was; he has received more benefit than he thought he had, and he gains more after he goes home than while he was here. He feels just as well as ever, and goes in for the old habits, and the unwholesome things just as before, and pretty soon he is down again, comes back and gets better again, but does not get well quite so quick; and he does not get quite so well. He goes home again and gets down once more, and then he comes back again, and he wonders why he has to stay so much longer. He has exhausted his vitality and his recuperative power.

What We Are Desirous of Doing

is to convert you while you are here to a new way and a better way; and we call it the "Battle Creek Idea" just to have a convenient term to talk about, something unique to beguile people into the idea that it is something new, while as a matter of fact it is as old as the hills.

That is the best thing about it; and the reason why I recommend it to you is because it is so old fashioned. When God put man into the world he told him what to eat. He soon began to eat other things. It was in the matter of eating that he first set his will in opposition to the will of his Maker. Some say it was eating an apple; but we have no statement to that effect. It was the act of disobedience rather than the fruit that produced dire results. Man followed in the path he had chosen and began to eat flesh.

After the flood, permission was given to eat meat, and you know what a dropping off there was in length of life. Noah lived nearly a thousand years. His sons lived only six hundred years; and eight generations afterward Abraham lived but one hundred and seventy-five years. In a short time the ordinary space of life was only three score years and ten, and now it is only forty-five years instead of seventy.

The Abbreviation of Life

came on with meat-eating. People used to smile when I talked about that, but there are not so many people who smile now as used to, because it has been proven to be true. Metchnikoff has written a book on the nature of man, in which he shows that because food putrefies in the colon, and so much poison is thus produced, the individual's life is shortened by chronic toxemia. It is those poisons absorbed from the colon and the intestine that produce old age; and many others have demonstrated that. Nobody doubts now that premature old age is due to poisons that are generated in the intestine, absorbed into the blood, and harden and destroy the arteries, and cut off the blood supply. That is what old age is.

Which of the Foodstuffs Putrefy?

Starch does not putrefy; apple-juice will not putrefy; it may become sour, but it does not acquire the odor of decaying flesh. It is only flesh foods, eggs, and foods of

that sort that undergo putrefaction; and flesh is the food *par excellence* for producing putrefaction in the colon and shortening life, because of these poisons. That is a simple, plain proposition. To prove it, go to a zoological garden and pass by the cages of the various animals. Pass by the cage of an antelope, a gazelle, or deer, for example. There is no particularly bad odor there. Pass along by the cage where they keep the parrots and the other frugivorous birds, and there is no particularly bad odor there; but go down to the lion's and tiger's cages! What an odor there is there! They have to take the greatest care of those cages to make it possible to tolerate them within the precincts of a place where people gather. It is because of the undigested residue of the food of carnivorous animals which undergoes putrefaction. There is a wonderful difference. The difference is in the diet. When foods decay within the body, the products of that decay taken into the blood destroy the arteries and the nerve cells, and introduce a great number of chronic diseases from which the world is dying. This is the real foundation of the race degeneracy that is sweeping over the civilized world like a tidal wave at the present time.

In our laboratories, in our study of the experience of men and women in our clinical observations, we are continually studying the cause of these maladies, and what is the right way of life. And some things have been found out in the matter of diet which show the evils of the use of flesh food or a high-protein diet, and that the evils of this sort of diet are unquestionably one of the great causes of the shortening of human life. Man is naturally a frugivorous animal with a long alimentary canal intended for fruits and food which will not putrefy, and taking flesh food which belongs to a carnivorous animal with a short alimentary canal, it remains in the intestines for such a long time, and the absorption of poisons is so complete, that the man is poisoned to a far greater extent than any other animal would be.

We Had a Dog and a Goat in Our Laboratory.

The dog was fed upon meat, and the goat fed upon the goat's normal diet—oats and hay. No indican was found in the urinary secretions of either one. The dog was able to eat that meat and digest it so perfectly that there was no putrefaction to amount to anything. We then changed diets, gave the dog the goat's diet and the goat the dog's diet. The goat would not eat the dog's diet and the dog could not eat the goat's diet, altogether. They both declined; but with a little persuasion and a little cooking, the dog finally took the oatmeal very well with a little milk added, and the dog got along all right, and seemed to improve under it. The goat accepted a small amount of meat when it was mixed with his other food, and as soon as that small amount of meat was added, enormous quantities of putrefactive poisons appeared in the urine, great quantities of indican, showing that the goat was being poisoned by the putrefaction. The goat has an alimentary canal thirty times as long as its body, while the dog has an alimentary canal only four times as long as its body, and the meat remained in that long alimentary canal

of the goat, undergoing putrefaction and absorption, and the animal suffered.

Man is in the case with the goat or sheep, rather than with the dog. His alimentary canal is ten times that of his body, which fact puts him in the class with the gorilla, the orang-outang, and the chimpanzee, rather than with either the grazing or flesh-eating animals. It is rather a respectable class of animals who live without eating the flesh of their neighbors.

But the custom of eating flesh is unnatural for human beings, and for the reasons given is pernicious in its consequences, as is shown by the dire results from which the race is suffering. A return to the natural food of mankind is an imperative necessity if we would avoid the evils that now beset us.

SLEEP AND INSOMNIA

(Continued from page one)

been going on through the day is repaired. So it is a very important function; and in considering it I wish first to speak of what we may call

The Causes of Sleep

I may say at the outset that no one can state positively just why it is that people go to sleep. Philosophers have theorized, physiologists have experimented, for a large number of years, but the question as to what is the cause of sleep has not been satisfactorily answered. Yet, there are some things that answer it quite as well as many other questions are answered in reference to the physiology of the body.

The most important cause of sleep is undoubtedly the recession of the blood from the brain. The blood-vessels in the brain are very numerous and there is a large amount of blood in the brain. During the day the quantity of blood is greater in the brain than during sleep, when the brain is not working at all, or working very little. The blood-vessels are all under control of the nerves. Each blood-vessel is made of several kinds of tissue. If we take an artery, for instance, we have lining the artery a layer of flat cells called endothelial cells, that form the inner surface of the blood-vessel; and outside of that are layers of connective tissue which give support to the blood-vessel, and outside of that are muscular tissues. Some of these muscles have their fibers arranged around the blood-vessels, so as to encircle them, and others of these little muscles are arranged lengthwise of the blood-vessels.

At night these circular fibers contract, the blood-vessels become smaller, and when the longitudinal fibers contract, the blood-vessels become shorter. These muscles of the blood-vessels are very small; yet they are under control of the nerves just as much as the muscle of the arm is under control of a nerve.

Sometimes the nerve sends down impulses to these muscles and they contract. Some of you who are sitting here now are perhaps troubled with cold feet, and when you have that symptom the blood-vessels in the feet contract and the blood is not allowed to pass into the feet. Some people also have cold hands at times, and at another time their hands are warm. The nervous systems of

these people are easily disturbed, and that disturbance shows itself in the circulation of the blood.

There is a center in the brain that controls all this, and this center is called

The Vasomotor Center,

the nerve center having control of the blood-vessels. It is a center like the superintendent's office of a large factory. The superintendent telephones directions to different parts of the building, to various departments, giving instructions to his foremen, or smaller centers.

This is a center that has control of other minor, subordinate centers. And thus the blood-vessels of our bodies are under nervous control. Sometimes this center becomes fatigued during the day; and so, as it becomes exhausted and tired, it loses its grip upon the blood-vessels and these little muscles will not contract. And instead of diminishing they dilate, and when they become larger they contain more blood, the blood-vessels in your hands and arms and legs distend, and that

readily see, if this be the case, that sometimes it will be influenced more by forces outside of us than at another time. Our nervous system is sensitive; that is, it responds to stimulation very readily, it responds to those forces outside of us—the heat, the cold, light and sound, etc. Perhaps I should explain that

There Are Two Properties of Nerve Tissue;

one is what we call irritability, and the other is conductivity. Irritability is the capability of being stimulated or excited. Conductivity is the capability of transmission of an impulse or sensation from one point in the ends of a nerve to another part of the body over a nerve fiber. It is on account of these two properties that the nerve tissue is of value to us. Nerves that are not sensitive are not of any use. A man who can not feel is paralyzed. When this normal irritability is gone, the function of the nerves is gone. In the man with these two properties in normal condition, they are at their height, at their best, in the morning after a good night's rest.



THE IRONING ROOM, SANITARIUM LAUNDRY

means less blood in the brain. And so the blood recedes from the brain into the extremities. And that is the principal cause of sleep, so far as we can ascertain it by physiological methods of experiment.

But besides this there are other causes. Our nervous system is the medium of communication between us and the outside world. We would not be of any use unless we had a nervous system between us and the outside world, and we come in contact with that world through our nerves. Sensations of heat and cold, of comfort and pain, come to us through the medium of our nerves. Through the eye, the optic nerve is stimulated by the rays of light that impinge upon the retina of the eye, and a ray of light comes in touch with the nerve of the eye. And then we have waves of sound in the atmosphere, that impinge upon the auditory nerve of the ear, and we hear sound. So our nervous system is the medium of communication between us and the outside world.

This nervous system of ours is more sensitive at one time than at another, and you can

And as we go down through the day, they naturally become less and less, the normal physiological irritability of our nerves diminishes during the day; and at night our nerves do not respond so readily. It takes more to stimulate them; our nerves are not as sensitive in the evening as in the morning.

And one of the causes of sleep is the

Reduction of the Normal Irritability

of the nervous system. The lessened activity of the nervous system causes us to be less sensitive to our surroundings; we lose our keen interest in what is taking place about us, and so fall asleep. We go to sleep because the machinery of the body slackens its speed. There must be something to keep it in motion. There is something inside of ourselves that keeps us going. There is a relation between us and the outside world.

That point is nicely illustrated in a case that was reported by a German scientist by the name of Strümpel. He had a boy fourteen years of age, who had a peculiar disease

(Continued on page six)

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REFORMING AGAINST THE WILL

THE old saw has it that "A man convinced against his will, is of the same opinion still." And that is undoubtedly true. No real progress is made in this life by the man who leaves his heart behind him. To advance in any line while the heart is not with us is to take steps that will be retraced upon the very first opportunity. The Saviour understood the philosophy of this very well, and he taught us to transfer our treasure on before us over into the next world, for by that means our hearts would be set in advance of us in the upward road, and the man whose heart is ahead of him will as surely follow it as he will surely return to it if it is left behind.

People become very much attached to certain pernicious habits, which prove to be the undoing of their possessors. The time comes when these people discover that their pet habits are working vital ruin for them, and they must abandon them for a while until they regain their feet and are rescued from imminent peril of death. But all the time they cherish these vipers that have stung them to death, and have them safely laid up until such a time as they dare take them to their bosom again. They have found out the nature of these false friends which are insidious and deadly foes, but notwithstanding that, they love them still. They long for them; they are impatient to be again in their deadly embrace. They hasten away from the Sanitarium in order that they may resume their fearful relations.

Surely, the commonest kind of sense ought to protest against such folly, and it does, too, but protests are in vain while the heart is enamored. The only sensible thing for people to do who find themselves brought to the brink of ruin by vicious habits is to break with them at once and forever. Hate and despise those things that have so deceived you. Refuse to touch their blood-spotted garments. "Set your affections on things above" these objects, and turn from the enslaving things that drag us down with the most profound aversion. Then reformation

will be practical and effective, and lasting. But a man with his heart set upon cigars, whiskey, high-living, fast company, will turn back to them just as soon as he feels the deadly grip on his vitals lifted a little. He will as surely perish with them as the sun shines. Encourage a love for the simpler and purer things of life, get the heart higher than the stomach, and altogether out of the flesh, and the effect will be seen in greater happiness and freedom and higher attainments.

LAUNDERING FOR THE SANITARIUM

ONE of the busiest departments of the Sanitarium is the large two-story laundry, illustrations of which we give this week. The laundry is located in a three-story brick building situated to the east of the other buildings. Two stories are used by the laundry, the lower being occupied by the machine shop, the tin shop, and electrical department. At this season of the year sixty-five employees are required to operate the plant, and in the summer the number is considerably increased.

As will be seen by the illustration, this institution is well supplied with the latest and best machinery and appliances for doing its work. Among other machines are nine rotary washing machines; five centrifugal wringers; three large flat-work ironers, skirt ironers, an outfit of collar and cuff polishers and shapers.

All will understand that the laundry work of such an institution would necessarily be very large, as one of the prime considerations is the utmost cleanliness and care in all branches of the housekeeping. Linen for tables and rooms must be changed almost daily; and the bath department utilizes a large quantity of washed goods. In addition to the work of the house is the personal work for guests and employees, which aggregates an amount sufficient in itself for a large plant.

For the purpose of imparting some definite idea of the work done daily by the laundry we mention a few items obtained from the foreman as follows:

For the bath department alone the following is the approximate daily amount of work in certain articles: Towels, 2,300; sheets, 2,100; fomentation cloths, 1,000. The tables furnish 165 tablecloths and 1,400 napkins daily. Not less than 26,000 pieces now constitute the daily run of the laundry. This is the work done at the present season, which is largely increased in the rush times.

A visit to the laundry will interest those who take notice of industries; the order and system and cleanliness everywhere apparent is in keeping with that seen in all the departments, and always calls forth favorable comments.

FROM THE QUESTION BOX

(Continued from page one)
reform all your habits of life, live just as nearly right as you possibly can.

Q. Do you think it well to distend the colon with several quarts of water?

A. No, there is a little danger in the use of the enema in over-distending the colon. It is better to use quite hot water, and then, unless there is colitis, to follow that with a little rather cool water, water at 80°, so as to tone up the muscles and prevent them from becoming permanently relaxed.

Q. Is there any help for Parkinson's disease?

A. Parkinson's disease is a disease in which there is a trembling,—sometimes called *paralysis agitans*, sometimes called "shaking palsy,"—a progressive weakening of the muscles accompanied by a shaking, beginning perhaps with the foot, or with the hand, then both hands, then by and by the head begins to shake, and the limbs also become affected, and often the whole body is affected. This continued motion is very exhausting. The disease is not entirely curable, but we have had very good success in the treatment of it so far as to arrest it and prevent its further progress. I have in mind at the present time a man of considerable prominence, who came here a few years ago and spent three or four months, and he is still living; but the disease is not curable.

Q. What would cause a person with a clean tongue to have a foul taste upon waking in the morning?

A. Probably the tongue is a little foul at that time; but it must be remembered that the odors of the breath do not come entirely from the mouth. If there is an unclean spot anywhere inside of the body,—an abscess somewhere, an accumulation of decomposing materials in the colon, a bad state of things in the stomach, the breath will reveal the fact, because the blood is circulating through that part, and is gathering up these foul odors, and through the lungs the odors escape into the air. A tainted breath is one of the most common symptoms of intestinal auto-intoxication.

Q. I am troubled with insomnia; what shall I do to induce sleep?

A. Every case of insomnia is curable. I do not hesitate to make this statement, because the worst cases have been cured. I was down at the Kankakee, Illinois, Insane Asylum some years since, and the superintendent said to me: "That young man you sent down here last year to teach our nurses massage, did us a great deal more good than we knew at the time. After he had been here some days, we had a patient who had become insane from insomnia. She could not sleep, nothing but chloroform would make her sleep. Your young doctor suggested that we try a neutral bath, told us to be very sure to make the temperature exactly 92°, and we did. In fifteen minutes that woman was quiet, and in two hours she began to show symptoms of drowsiness, and when we gave her a second bath she went off to sleep and

slept all night. We did not give her a drop of medicine, and in three months she went home perfectly well."

The trouble with people who suffer from sleeplessness generally is that they are irritable, they are not patient enough, they are not willing to be thoroughgoing. When a patient is put into a neutral bath to make him sleep, it should be with the understanding that he is not to come out of it until he goes to sleep. I often use this measure myself. Many a time I have spent the night after my work is done in the bath-tub. If I haven't much time to sleep, I know I can sleep twice as fast in a bath-tub as anywhere else, the philosophy is, it quiets and soothes the nerves. Have the bath at 92°, that is just a few degrees below blood heat.

It is called a neutral bath because it is neither hot nor cold; the body feels no temperature at all in the neutral bath; the skin becomes water-soaked, the nerves are quieted, and all the disturbing impulses that are being sent into the brain are stopped; the telephone receiver is taken off the hook, so you can not be called up, and you go off to sleep. You may have to spend a couple of hours there before you begin to get sleepy, but sleep will come.

Q. Are acid fruits good for one who has rheumatism?

A. The best thing in the world. You may think this a strange statement, so I will show you how it is. A fruit acid combines with alkali to form what is called an acid salt. Suppose we have malic acid, that is found in apples. Malic acid is not free acid in the body, but it is malic acid plus soda. When these acids are taken into the body, the acid part is digested and absorbed and utilized in the body just the same as starch is used, for the very same purpose as starch is used; it is fuel for the body, and that leaves alkali behind.

If it is oxalic acid or vinegar, it is a very different thing, because oxalic acid and acetic acid are not used as food; they are not burned up, but they remain in the body, so they may lessen the alkalinity of the blood and increase rheumatism. Oxalic acid is found in pieplant, sorrel, and some other substances; acetic acid is found in vinegar; and pickles will lessen the alkalinity of the blood, and so will do harm in rheumatism. But the acids of fruit—malic acid, citric acid, tartaric acid, found in apples, lemons and grapes, are used up, assimilated, just as starch and sugar are; so they do not count as acids at all, but being combined with alkali, which increases the alkalinity of the blood, they combat the rheumatism. Do not be afraid of fruits if you have rheumatism, or if you have a tendency in that way. As a matter of fact, rheumatism is not produced by acids anyhow. Rheumatism is produced by poisons absorbed from the colon, by intestinal autointoxication.

Q. In a case of smallpox would you recommend a long-continued immersion in warm water?

A. It is a capital thing. If I had the smallpox, I would ask to be put into a tub of warm water with just enough permanganate of potash in it to make it pink, and I would have my face bathed with it, too,

and I would not expect to have any pox marks on my face afterward. It is a perfectly harmless remedy, and I believe it has value. The protection of the skin, or the painting of the skin brown or red with tincture of iodine or with permanganate of potash protects the skin from the action of the actinic ray. It is well to have red curtains hung up to the windows, too. Smallpox is very slightly contagious, in fact, not so contagious as measles; and with proper hygienic management, I think nobody need to die of smallpox.

Q. What causes hay fever?

A. Two things—the pollen of certain plants, and a specially susceptible nose.

Q. Is there a cure or relief for it other than change of climate?

A. There are remedies which are very valuable. Building up the vital resistance of the body, correcting the diseased conditions of the nose, and protecting the nose against the inhalation of pollen are very helpful indeed.

Q. What is best to eat for a very light supper?

A. Stewed fruit is the very best thing for supper. The old idea that "fruit is golden for breakfast, silver for dinner, and lead for supper," is a ridiculous old adage. It is absolutely untrue. Fruit is good all the time, but particularly good for supper, because it requires no digestion. It only requires to be passed on from the stomach into the intestine. Practically no digestive work is required; but when you come to take strawberries and cream and sugar, that is quite another thing. That is more than fruit. The cream will require a long time for digestion. The fat that goes with the cream keeps those strawberries in the stomach a long time, instead of letting them pass on into the intes-

tine; so they undergo fermentation perhaps and other mischiefs result.

Q. Is mild exercise beneficial after meals?

A. Yes, it is good after meals if your stomach is not sore. If your food is heavy load on your stomach, you would be



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ter lie down and rest after meals. It is a good plan to lie on your face if you have slow digestion, with a pillow under your stomach, so that each time you take a deep breath you squeeze the stomach a little, and that gives the dinner a little nudge and pushes it along.

Q. A writer in a journal says that a person developed diabetes from the continued use of distilled water in considerable quantity, and no water with meals. Is that true?

A. No, it absolutely is not true. A person may have taken distilled water and have diabetes, but the distilled water did not have a thing to do with it. It was in spite of it.

Q. May one having hyperpepsia eat vegetables?

A. Yes, but he must take pains to chew them very well, and I am inclined to think potatoes are not good vegetables for persons suffering from hyperpepsia, for they contain alkaline substances which irritate the stomach and increase the gastric secretion. That is the reason why many people think potatoes sour on their stomachs. It is not because the potatoes ferment at all, but because they irritate the stomach and cause it to secrete too much acid.

Q. Why is it said to be harmful to eat immediately before retiring?

A. Because we can not sleep well while we are digesting. We can digest while we sleep, but we can not sleep so well. We can not get refreshing sleep while the stomach is occupied with food, because the brain is concerned in the process of digestion, and the brain activity is kept up by gastric activity. Food is retained in the stomach too long if we sleep after meals, instead of passing out as rapidly as it should, because the breathing is restrained, and the stomach is not agitated by the diaphragm coming down and compressing it, so the food is retained too long in the stomach.

Q. Why are hard-boiled egg whites hard to digest when they are well fletcherized?

A. Because we can not reduce them to liquid. If they could be reduced to a liquid state, they would be more readily digestible.

FOUR RATS!

AN exchange tells the story of a poor workingman who told his wife, on awakening one morning, a curious dream which he had during the night. He dreamed that he saw coming toward him, in order, four rats. The first one was very fat, and was followed by two lean rats, the rear rat being blind. The dreamer was greatly perplexed as to what evil might follow, as it had been understood that to dream of rats denoted calamity. He appealed to his wife concerning this, but she, poor woman, could not help him. His son, who heard his father tell the story, volunteered to be the interpreter. "The fat rat," he said, "is the man who keeps the saloon you go to so often; the two lean rats are my mother and I; and the blind rat, father, is yourself."

That boy was a modern Joseph in the interpretation of dreams.

SLEEP AND INSOMNIA

(Continued from page three)

of the nervous system. He could see with only one eye, and hear only with one ear; he could not feel pain or touch or heat or cold on the skin in any part of the body; he could not taste or smell. The lad would go to sleep in a moment if the professor would tell him to close the seeing eye, and would plug the one ear with cotton. There was nothing to irritate his brain, and so he went to sleep. There is constant activity inside of the body—the circulation of the blood and chemical changes going on to keep up the nutritive processes of the body which maintain life; but when you go to sleep there is a decrease of stimulation; and this lack of stimulation may come about by a diminution in the normal irritability or by cutting off the stimulation. In every case the results, you can readily understand, would be the same.


So, then, we have a cause of sleep in the lessening of the normal irritability of nerve tissue or the lack of normal response to stimulation. And sleep is induced by the eradication of these stimuli that I have already mentioned, the cutting off of these forces that are impinging upon our bodies all the time. This is why we naturally go to bed at night.

It is because there is not so much to stimulate our nerves from the outside. The sun does not shine at night; it is quieter at night, and there are not so many changes in the atmosphere to stimulate our nerves at night. The night is the natural time for sleep, because these forces outside of ours are not so active as they are in the day. The reason we can not sleep when the light shines in our eyes is because it is stimulating to our nerves, impressions of light are going into our brains. The reason we can not sleep when noise is being made is because impressions get into the brain through the auditory nerve and prevent our going to sleep.

And this is illustrated in the case of the boy I have already mentioned, because in his case the nerves were all cut off and there were no impressions going in at all, and so he went to sleep.

Another Cause of Sleep

is the accumulation in the body of certain poisons. These poisons act by lessening the normal irritability of the nerve tissues. We have a number of experiments that illustrate this. It is generally agreed by physiologists and those who have studied this question carefully that there is something produced in the body during activity that lessens the normal irritability of the nerves and produces sleep. And this particular chemical substance is probably in the form of an acid which lessens the normal irritability and produces sleep. The poisons that are present in the brain produce fatigue. When you have walked a long distance, you feel tired and exhausted; and the reason is that these




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poisons accumulate in the body, in the muscles particularly. The same thing occurs when you have had a great many cares through the day. The two cases are different; that is, your feeling from physical fatigue is not the same as from mental fatigue, and undoubtedly the poisons in the two cases are different, but both produce the sensations of fatigue in the body. Then we will say that the accumulation of poisons in the body is another contributory cause of sleep.

ARRIVALS

THE list of arrivals at the Battle Creek Sanitarium for the week ending March 5 is as follows: Mrs. M. Long, W. Va.; J. P. Knapp, Chicago; D. D. Starr and wife, Ark.; Sam'l Schlosser, Ind.; Mrs. W. O. Randall and Mrs. Chas. Wellmann, Mich.; L. W. Miller, Winnie Hoffacker, Ellen Eickhom and J. H. Hoffacker, Ind.; Jno. Cochran, Mich.; Mr. and Mrs. C. A. Scholer and Miss Marian, Wis.; Chas. Reynolds and S. C. Cortwright, Ill.; H. B. Sweeney, Mass.; F. T. Gaize, Mich.; Sam'l Hess and wife, W. Va.; J. K. Nevins and C. V. Miller, N. Y.; W. B. Smyth, Ill.; Mrs. G. G. McMahon, Chicago; Nina Merritt, Mich.; Mrs. H. E. Carter, Detroit; W. H. Bohn, Ind.; Elizabeth Carrothers, Siam; M. P. Gould and J. E. Walker, New York City; C. E. Welch, N. Y.; N. S. Armstut, Ind.; P. G. Frazier and John C. Carland, O.; Mrs. W. W. Tamman, Ont.; Mrs. M. A. Campbell, Tenn.; W. H. Proctor, Chicago; Mrs. Mary Spaulding, Wis.; F. M. Bond, Ill.; Geo. W. Sherwood, Wis.; N. J. Helm, Ill.; Wayburt F. Reynolds, O.; Ruth

Hemenway, Ill.; Geo. B. Grant, Mass.; G. W. Clifford, N. Y.; Miss Anna V. Parkins and M. B. Parkins, Pittsburg; Mrs. Chas. Anderson and Mrs. Rice, Ill.; E. C. Binder, New York City; S. S. Howard and J. L. Howard, N. Y.; C. J. Lane and wife, Cleveland; Mrs. G. H. Hubbard, Mrs. W. P. Clark and Miss Winifred Hubbard, O.; Dr. E. Harris Parkins, Pittsburg; V. D. Simons, Wis.; J. R. Taylor, Chicago; V. H. Diefenderfer and wife, Pa.; John Fletcher, R. I.; Mrs. F. K. Sworn, Mich.; Rosa L. Foster and Eugene C. Foster, Detroit; A. C. Piper, Pa.; Dr. Funk, Ind.; W. E. Stone, Boston; Sarah Hustid, Mich.; John T. Naylon, Detroit; N. E. Meador and wife, and Miss Hines, Texas; Wm. A. Field, Chicago; C. W. Delvey, Milwaukee; A. W. Bloom, Wis.; Chas. W. Terry, Mich.; Harry E. Chase, Grand Rapids; Mr. and Mrs. J. C. Day, Ind.; F. M. Gaize, Mich.; J. T. Earl and son, Ind.; J. A. Gilroy and Thos. R. Sharp and wife, Detroit; F. W. Rogers, Wis.; A. C. Johnson, Chicago; J. B. Brown and Mrs. Robert Loury, Mich.; R. C. Stiefel, Pa.; B. Edwards, Okla.; A. W. Libbey, Detroit; P. E. Hull, Kans.; Geo. Long and wife, Ind.; R. B. Watson and wife, Pa.; Mrs. G. A. Everest, Minn.; Mrs. B. D. Holbrook, Ia.; L. J. Karcher, City; Edward Turner, O.; Geo. F. Cook, Detroit.

Mr. and Mrs. Samuel Hess, former patients of the Sanitarium, have come from their home in Charleston, W. Va., for a period of rest and recuperation.

The mission study class met in the fifth floor parlor on Sabbath afternoon at 3 o'clock. The subject was, "The Change in Korea during the Last Thirty Years." The meeting was led by Mr. Barr.

Dr. C. E. Welch, of Westfield, N. Y., president of the Welch Grape Juice Company, is spending a few weeks at the Sanitarium. Doctor Welch began the manufacture of unfermented grape-juice in 1869.

Among the recent arrivals at the Sanitarium are Dr. E. Harris Parkin, of Pittsburg, accompanied by his mother, Mrs. Anna B. Parkin, and his brother, Mr. M. B. Parkin, who are to take a course of treatment in the Sanitarium.

Mrs. M. S. Foy, superintendent of the Nurses' Department, has made a brief trip to Detroit to visit the Sanitarium nurses in the Children's Free Hospital of that city, where six of the Sanitarium nurses are having a three months' practical experience in children's diseases.

News and Personals

His many friends are happy to greet once more Mr. John Fletcher, of Providence, an old and staunch friend of the Sanitarium and its principles.

The fraternal organization known as the "Woodmen of the World," is to hold a State meeting in Battle Creek from the 14th inst. to the 17th. They will visit the Sanitarium, and by request Doctor Kellogg is to give

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,

LENA F. COOPER, Director,
Battle Creek, Michigan.

them a stereopticon lecture, illustrating "Scientific Methods of Combating Disease."

Prof. Booker T. Washington is to be the guest of Doctor Kellogg about March 15, upon which date he is to deliver a lecture under the auspices of the Sanitarium in the Tabernacle at 8 o'clock. His subject will be, "The Progress of the Negro Race in the South." Many are desirous of hearing this foremost leader of his race.

Among recent missionary arrivals we note Miss Elizabeth Carothers, Presbyterian missionary from Siam; Mrs. G. H. Hubbard and her daughter, of the American Board, from Foochow, China; Mrs. W. P. Clarke, of Monastir, Turkey; and Rev. Ira C. Cartwright, of the Methodist mission in Mexico, now pastor in Albuquerque, New Mexico.

One of the recent guests of the Sanitarium was Mr. Eugene C. Foster, Boys' Secretary of the Y. M. C. A. in Detroit, Mich. Mr. Foster is editor of the Boys' Department in the *Sunday School Times* and is the author of several well-known books upon boy life and training. He also edits a department in the *Sunday School Journal*. It is much to be regretted that his stay at the Sanitarium was so brief.

The facilities of the X-ray department are being further perfected by the addition of the "Klinoskope," imported from Germany. This is an instrument for radioscopic work which will facilitate this part of the X-ray examinations. This department will also install a stereoscope, which will permit the making and viewing of stereoscopic X-ray plates. Also a new radiographic table, which will render the making of radiographs much more convenient.

The midday prayer service for the sick is now conducted under the care of the Christian Endeavor Society, which has named a number of competent persons to have a care for this little meeting. The service is held daily in the fifth-floor parlor at 12:30 o'clock, lasting a little more than twenty minutes. All who are interested in such a service are cordially invited to attend.

The Christian Endeavor meeting was held in the Sanitarium chapel on Friday evening, and was one of great interest. The meeting was led by the president, Mr. W. C. Kellogg, who drew some fine lessons and examples from the life of Moses. It was the monthly consecration meeting, and a spirit of deep earnestness prevailed. About seventy-five members answered to the roll-call with either a short testimony or a verse of Scripture. Several members were necessarily absent on duty.

The Sanitarium W. C. T. U. held its regular meeting at the residence of Mrs. J. H. Kellogg on Tuesday afternoon. An excellent paper was read by Mrs. Kellogg on, "How to Succeed in Temperance Work." Mrs. Robt. Maus rendered a very fine solo, and Master Paul Eggleston won enthusiastic applause for his recitation, "I am a Temperance Boy." An important feature of the

afternoon was the roll call, to which each member responded by giving a current event on temperance.

Rev. and Mrs. J. S. Porter have been making a short visit to the Sanitarium for medical examination and diagnosis. For several years Rev. Porter has been working in Austria, under the auspices of the American Board. His work is entirely evangelistic and he has thirty churches under his care with a membership of over 2,000 people. Rev. Porter has an engagement to represent his work in Cleveland, and we hope that in the near future the Sanitarium family may have an opportunity to hear some account of his work among the Bohemians in and around the city of Prague.

Sir Horace Plunkett recently made a short visit to the Sanitarium, and expresses himself as much interested in the dietetic department. He is anxious to introduce the Battle Creek principles into Ireland, and for that purpose is contemplating sending one of the teachers from his agricultural school to take a post-graduate course in dietetics in the Domestic Science School of the Sanitarium. Sir Horace introduced the agricultural school into Ireland and has been one of the foremost leaders in its management and development.

We are all glad to welcome home some of our workers who have been on leave of absence. Miss Carrie Zahn, medical receiving matron, has returned from a very pleasant vacation in Fort Worth, Texas, where she was the guest of Mrs. Jack Myer, a friend and patron of the institution. Dr. W. F. Martin comes home from a fortnight's visit to St. Petersburg, Florida, where he succeeded in putting on a famous "millionaire's tan." And Dr. M. A. Mortensen has returned from his European tour in search of additional observation in medical lines. These workers all take up their duties with renewed vigor, and they find a large amount of work awaiting them.

The Normal School of Physical Education gave a gymnastic exhibition on Tuesday evening which was pronounced to be one of the best they have given. The program was in charge of Misses Bacon and Balle, and Mr. Chynoweth, senior students. The athletic events were as follows: Ring snap for height, won by Mr. Art Meyer; height, 7 feet 6 inches. The basket-ball game, which was played between the Domestic Science and Normal School girls. The wand drill was very gracefully executed; and the apparatus work was also much enjoyed. The men did some feats of strength on parallel bars, while the women performed on the horse in such a manner as to elicit repeated applause.

A large and appreciative audience gathered in the parlor for the Social Hour on Wednesday. Some beautiful selections were given on the 'cello by Mr. Lehman and by Miss Farquharson on the violin. These two guests have very generously contributed on several occasions to the enjoyment of the Sanitarium family, with whom they are great favorites.

Mrs. Bush rendered some fine piano solos. Mrs. Anton Schatzel gave an interesting "Romance" illustrated by musical selections played by Mr. Drever. Dr. Graham Lee gave a fine reading, and some amusing incidents of adventure were given by Rev. J. H. Worley. The large audience seemed greatly to appreciate the good nature of the guests and their willingness to contribute to the enjoyment and entertainment of the family.

Rev. Mr. Deter, of Brazil, spoke in the parlor on Sunday evening. He gave a very good description of "How the Missionaries Work in South America." His headquarters are at Rio Janeiro, in which city he works under the direction of the Southern Baptist Board. In addition to work in the city he is responsible for ten or twelve churches outside, which occasion frequent visits into the mountains and wilds of the surrounding districts. He related some thrilling experiences of the dangers encountered from wild animals as well as wild people, and told how he was at times assailed by bands of marauders who threatened his life. He told of a bandit and wild marauder who was the terror of the neighborhood, and who became converted and learned to read the Scriptures. A woman walked twenty-five miles (carrying her child) to attend one service.

The Sanitarium had a brief visit recently from Rev. Wm. E. Strong, of Boston, editorial secretary of the American Board of Foreign Missions. A pleasant feature of his visit was the little missionary dinner party arranged in his honor in the south dining-room, at which covers were laid for: Dr. J. H. Kellogg, Pastor Geo. C. Tenney, Rev. Arthur H. Smith, D. D., of China, Dr. H. Steinmetz of the Philippines, Rev. Deter of Brazil, Rev. Worley of China, Rev. Graham Lee, D. D., of Korea, and the guest of honor. In the afternoon Doctor Strong spoke to a large audience in the parlor on the importance and opportunity of missionary effort. This, he said, was the "Big Job in the World," and gave most interesting data and illustrations from the different countries of the world, showing how important a part missionary enterprise had played in their evangelization, civilization and development.

Dr. Jean Whitney-Morse, of the Sanitarium staff, has left Battle Creek to join her husband, Dr. J. F. Morse, in Porto Rico. A very interesting farewell was given to her on Wednesday afternoon in the home of Mrs. C. E. Stewart. Several of the Sanitarium ladies, Mesdames Barnhart, Mortensen, Martin, and Stewart, had planned a farewell gathering for the doctor, which was attended by several of the doctors and nurses. Each visitor carried a sealed note and a handkerchief, and at a given signal Dr. Elizabeth Harris showered them upon her, much to the surprise and delight of the recipient. Light refreshments were served and music and social conversation completed a very pleasant afternoon. Several who were unable to be present had written their farewell greetings, which were included in the "shower." Word has been received from Dr. John F. Morse, in Porto Rico, who is greatly enjoying his work there and meeting with much success.

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TAKEN FROM THE QUESTION BOX

Sundry Queries Propounded by Patients,
with Ready Responses by the Sanitarium Superintendent

Q. Does the cooking of beans at a higher temperature than 212° make them more indigestible?

A. No. Beans have to be cooked at about 240° in order to kill the spores of germs so the beans will keep. That is the reason why the canners cook them at a higher temperature than 212°. If you try to can beans as you can apples, they will not keep.

Q. Is natural honey wholesome?

A. It is wholesome in moderate quantities, provided it is not too strongly flavored. The bees are sometimes disturbed at their work, and put a little virus into the honey. When the bee fills the comb with honey, just before he puts the cap on, he puts his stinger down in and lets in just the least little bit of formic acid to keep it from fermenting. If the bees are disturbed and become angry when they are working, the honey is likely to be poison because it contains so much formic acid.

Q. Does it favor the human body to drink half a glassful of water after each meal?

A. Half a glass or a glassful of water may be taken an hour after a meal without any harm, and two hours after a meal it is a good plan to take a drink. It helps along the stomach work. I think the average person should take about three pints of water a day. Drink a glassful of water in the morning when you get up, take a glassful when you go to bed at night, habitually. When you go in to take your bath, take a glassful before the bath. Then after the bath take another glassful of water, because you have been perspiring and losing some water from your skin. Then half an hour before dinner, if you have any gastric trouble, it is a good plan to drink half a glassful of water. It is a little tonic to your stomach. Take cold water if you have hypopepsia, and hot water if you have hyperpepsia.

HOW A LAWYER DOUBLED HIS EFFICIENCY

As Related by Hon. Goodwin Brown, of
New York, in a Lecture at the
Sanitarium Parlor

Introduction

DR. J. H. KELLOGG: Ladies and Gentlemen—I am sure you will be glad to hear from a distinguished New York jurist,



HON. GOODWIN BROWN, OF NEW YORK

who for twenty years or more has been one of the three men to manage and control the lunatics of the State of New York. New York has the distinction of having a greater per cent of lunatics than any other State in the Union. I believe there is about one lunatic in every 300 people in the State of New York, and you can see it is a large job to take care of thirty thousand lunatics. He managed it so well that he escaped himself, and protected the rest of the people; and a year or two ago we had a visit from

(Continued on page five)

GOOD FOOD MAKES GOOD FOLKS

Doctor Kellogg Talks to His Patients of
the Moral and Physical Effects
of Foods

I WILL talk to you to-night about food, a subject of perennial interest. No other subject is of more general interest than this. Air, water, and food are the three great essentials of life. There is an old German proverb, "*Der Mann ist wie er isst*" (as a man eats, so is he). The things we eat to-day are walking around and talking to-morrow; so what we eat must make a difference. I have not been at all surprised when I have seen the disposition certain young ladies I have known, exhibited when I considered the pickles and spices that they ate. The wonder was that they could be as amiable as they were.

Effect on the Disposition

Mothers do not always stop to think that the things they are feeding their boys may be cultivating intemperance. Frances E. Willard has well said that the kitchen is the vestibule of the saloon. Some years ago Professor Liebig made a very interesting experiment. He took a bear that was very savage, and made of him a very amiable bear by feeding him strictly upon vegetable food. About twenty years ago I made quite a study of this problem. I conceived the idea that all animals at one time subsisted upon vegetable food, and I thought if they were now fed on vegetable food it would be possible to reform the animals; so I gathered up all the animals of different species I could get hold of in this part of the country. I had a bear, a fox, a wolf, and various others of the flesh-eating animals; and I set to work to reform these animals.

The bear got on first-rate on a vegetable diet; in fact, I had the impression that the bear rather preferred the non-flesh diet. He was such an amiable creature that he played with dogs just as though they were little cubs, and they rollicked and played together. In the same yard was a donkey; the bear was tied up to his post, and the donkey was loose, and the bear and the donkey used to

perform the quaintest tricks together; they would stand up and wrestle. The bear never thought of biting the donkey. If the bear got too affectionate, the donkey would suddenly turn around and land his hind feet between his eyes. He would rub his head with his paw, and make a fuss about it, and then they were good friends again.

They were kept in a back yard on these premises, and it was a common thing to see the high board fence lined with people watching that bear and donkey perform. They were perfectly amiable until one day we changed keepers.

A Bear and Donkey Performance

In those days we were still more or less in ignorance and barbarism here, and bad meat upon certain tables, of which there were some left-overs; and this man who was put in charge carried out some of the meat and gave it to the bear, and the result was that inside of one week that bear had killed three or four dogs, and become so savage the donkey was very glad to keep his distance. A little dog he had been playing with before, that had been on very friendly terms, came up to him, and he seized the dog, tore his body open and devoured him quicker than you would believe possible for one animal to eat another.

In a short time he became so furious that he tore himself loose from his post and set out to catch men, and one man came very near being devoured by him. He was torn and quite badly hurt. It was necessary to kill the bear to allay the fears of the public. A butcher heard of it and said he would like to kill that bear. So he came and shot the bear, and it was buried in the stomachs of the people of Battle Creek. I wanted you to see what happened to a backslider, you know. So long as he was a flesh-abstainer he was a good, respectable citizen, and was admired and appreciated; but when he became a flesh-eater, you see what happened to him. I have given you only a short account of his history.

Another of My Animals Was a Wolf.

This wolf was a very amiable creature, too. He was really very docile, like a dog. I had to keep him chained up because there were chickens close by. I do not think he was entirely, thoroughly reformed, but he ate protose with delight. He had never eaten anything but fresh meat when he came here, and the next morning he began eating protose, and he seemed to appreciate it very much,—made no objection at all; and we did not have to coax him to take it; he was always ready for his breakfast of protose. After some months his chain got worn and he got away one day, ate several of a neighbor's chickens, and in three hours he was dead. He died of a surfeit. Again you see what happens to a backslider. Backsliding is dangerous business.

The rest of my animals—the fox, the raccoon, and the various other creatures—every one of them was reformed with the exception of a bald eagle that was so old he was incorrigible. A fishhawk, however, was reformed, and took to protose and other natural foods very well.

The suggestion was not originally mine; I got it from my dog. I had a very fine St.

Bernard dog, brought up a flesh-abstainer, too, and I noticed one day he was digging the meats out of a walnut with his canine teeth, and doing it in a very dextrous way. I discovered then what the canine teeth are for: they are for breaking into nuts and getting the inside out of the nut. About that time one of our missionary nurses who had been out to the Samoan Islands, told me that she saw a chicken, a dog, and a boy all making a meal off the same coconut.

The Coconut Furnished Food for All.

And I thought it would be a very good idea to try reforming these animals, to see if they would abandon their accustomed diet, and they did.

The monkeys in the zoological garden in London are fed on four things—lettuce, oranges, bananas, and bread. They have all they need there. Carnivorous animals fed on vegetable food require cooked food just as man does; but if you feed a carnivorous animal on cooked food, they find everything necessary in the vegetable kingdom. Without nuts, it is necessary that they should have cereals, but with nuts they can get along on fruits and tender leaves without cereals. Fruits do not contain fats in sufficient quantity, but they contain chiefly sugar.

Thousands of men and women everywhere are becoming more and more intelligent on this question of diet, and there are thousands more who wish to become informed about it, who desire to know the scientific facts relating to our eating, appreciating the fact that we are made out of what we eat, and that our efficiency depends very largely upon how we treat our stomachs.

The Digestibility of Various Foods,

or the length of time required for the digestion of various foodstuffs, are indicated upon this table:

	Hours	Minutes
Rice, boiled	1	00
Apples, sweet and mellow, raw	1	30
Sago, boiled	1	45
Barley, boiled	2	00
Eggs, fresh, hard-boiled....	3	30
Eggs, fresh, soft-boiled....	3	00
Eggs, fresh, whipped	1	30
Oysters, fresh, stewed	3	30
Beefsteak, broiled	3	00
Beef, salted, boiled	4	15
Pork, fat and lean, roasted..	5	15
Mutton, fresh, roasted	3	15
Veal, fresh, broiled	4	00
Veal, fresh, fried	4	30
Fowls, domestic, boiled or roasted	4	00
Duck, wild, roasted	4	30
Cheese, old, strong, raw....	3	30
Soup, barley, boiled	1	30
Bread, wheaten, fresh, baked	3	30
Cake, corn, baked	3	00
Carrot, boiled	3	45
Turnips, flat, boiled	3	30
Potatoes, Irish, boiled	3	30
Potatoes, Irish, baked	2	30
Cabbage, head, raw	2	30
Cabbage, head, boiled	4	30

We notice that rice is digested more quickly than any other food upon the list. Raw apples are next, then sago, and boiled barley.

Beefsteak requires three hours, and salt beef three hours and a half. The objection to lean meat, however, is not that it is hard to digest, but that it makes mischief in the body after it has been digested. When it comes to digesting roast pork, it requires five hours and a quarter; even stewed oysters require three hours and thirty minutes. Fried veal, boiled chicken, roast duck, cheese—are all difficult and slow of digestion. Marrow-bone soup that is made from a soup-bone, which contains so much fat, is a very indigestible kind of soup, while vegetable soup, the simple sort that we have on our tables here, is digested very readily—in an hour and a half.

Boiled vegetables generally are rather slow of digestion. It is a curious fact that raw cabbage digests in two hours and thirty minutes, while boiled cabbage requires four hours and thirty minutes. The boiling does not increase the digestibility of cabbage or lettuce or things of that sort; it rather has the opposite effect. It coagulates some elements that are more readily digestible in the raw state.

A whipped egg digests in an hour and a half, while a fried egg requires three hours and a half. Soft-boiled eggs require three hours, hard-boiled eggs three hours and thirty minutes. The reason is the albumen in the whipped egg is in thin films which are readily dissolved by the gastric juice, whereas in the case of the hard-boiled egg the food is swallowed in masses, which are much more difficult of digestion.

Character and Nutritive Value

When we come to study the character of foods and their nutritive values, we find as great a difference as we find in their digestibility. Porterhouse steak shows about sixty-six calories in an ounce. Dried beef has about the same value as beefsteak. Veal cutlets have about two-thirds as much. Head-cheese contains a large amount of fat and has a higher value. An ounce of pure starch has a caloric value of 116; wheat flour has about 100 calories, as it has a little moisture in it. An ounce of sugar or an ounce of starch is just about one portion, or 100 calories. The same is true of an ounce of dried gluten, or pure protein, which has almost exactly the same caloric value as starch. When used in the body it has a little less than four-fifths as much as starch, because it is not entirely utilized in the body as the starch is.

An ounce of fat contains 264 calories, more than two and a half times as much as the same weight of starch. Ham is about the same as beefsteak. Smoked bacon contains a large amount of fat; there is no objection to bacon on the score that it is not nourishing. Other and more serious objections are offered. A pound of bacon would be a day's ration for an ordinary man. Goose is ninety-six calories to the ounce, on account of the fat. All fish generally have less than half the nutritive value of beefsteak. Turkey has practically the same as beefsteak. The oyster is the lowest of all, eleven calories to the ounce. Pure beef-juice has seven calories, and yet many people imagine it is highly nourishing, but it really has only about one-tenth the value of bread. Meat contains about one-tenth its weight of extractives

which are of a poisonous character. Beef-tea is a solution of these poisons. Its food value is only three calories to the ounce, only one-quarter that of thin barley gruel or skim milk.

Let Us Look at Some Vegetable Foods.

Artichokes, beets, cabbage, asparagus are all about the same—thirteen or fourteen calories to the ounce. Then if one had to make his entire day's rations on beets, and his ration was 2,100 calories, he would have to eat ten pounds of beets for a day's ration. If his ration was to be on beef-tea, he would have to take some forty pints of it. Apple-juice has more than twice the value of beef-tea.

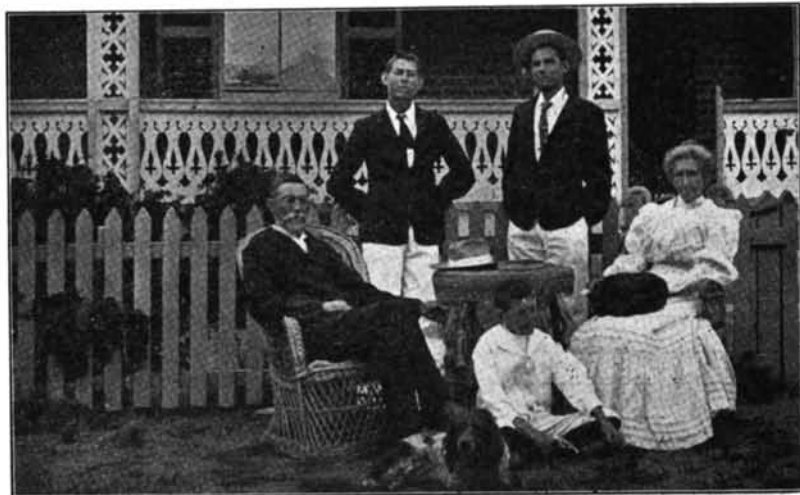
The cucumber has almost no food value, less than one portion in a pound of cucumbers, but the cucumber affords something besides nutriment. It has some useful juices. It is really a wholesome vegetable, but it should be thoroughly masticated. When it is soaked in vinegar, or hardened with salt, it becomes indigestible. When it is served with a little lemon-juice it is entirely harmless, because the lemon-juice and the cucumber are both digestible.

We Come to Fruits.

An ounce of dates or figs has a nutritive value of about 100 calories, or about one portion to the ounce. Now, grapes have about a quarter of this value. The muskmelon is just about the same as the cucumber and the lettuce. There is very little nutritive value in melons. Dried raisins and dried prunes represent about 100 calories to the ounce. When we come to cereals and legumes, aside from green peas and string beans, an ounce of beans or an ounce of peas, or an ounce of flour, or an ounce of any of the cereals is a portion. In oatmeal, it is a little more, and popcorn and cornmeal have a little higher nutritive value, but in general you may say that the cereals and legumes, peas and beans and all kinds of cereals in a dry state furnish about 100 calories, or one portion, to the ounce.

When we come to nuts, we have something that is really surprising, just about double the value of cereals and legumes, and more than three times the value of meats. Almond butter is three times the value of beef-steak. Even bacon, which has a nutritive value of 2,000 calories to the pound, because of the large amount of fat it contains, does not approach the nuts, with a food value of more than 3,000 calories to the pound.

(To be continued)



MR. BIGGS' FAMILY GROUP

A LETTER FROM SOUTH AFRICA

We have an interesting letter from Mr. John E. Biggs, of Brooklyn, South Africa, the owner of one of the largest ostrich farms in the world, and prominent in South African affairs. We regret that the letter was



DOSING AN OSTRICH FOR TAPEWORM ON MR. BIGGS' FARM

mislaid and has been overlooked for a few weeks. Mr. Biggs and his wife were guests of the Sanitarium last season, and Mrs. Biggs underwent a critical operation, and we take the liberty to make some extracts from the letter and to reproduce a few of the interesting photographs taken on his farm which Mr. Biggs kindly sent us. Mr. Biggs

and his wife are most delightful and appreciative people, and endeared themselves to everybody with whom they came in contact. We are glad to see that they are propagating Battle Creek Ideas at the ends of the earth: "We are very happy to be once more at our home, where we arrived after a pleasant voyage of eighteen days from Southampton to Cape Town. Though our home is, from your point of view, in far-off Africa, yet we have felt in our wanderings that 'there's no place like home.' In our travels we have seen much that is beautiful, and many things that are wonderful, and have met with much kindness and consideration by the way, but none of these things have been able to wean our hearts from our homeland.

"Our stay in England was very enjoyable, and the country was to us like a picture land, but the beauty of the land and the kindness and love of the friends did not harden the soft spot in our hearts for the Battle Creek Sanitarium. We were absent six and one-half months, and looking back we find that our best time was that spent there, and the recollection of it will always be a pleasant memory. You will enter into our feelings of gratitude better when I tell you that Mrs. Biggs is entirely well and daily rejoicing in freedom from that which was a trouble to her so long. May we thank you again for what you did to effect that release. I have learned to love that great Sanitarium with all its various activities and systematic management of all departments, the immense dining hall with its bustle, and the orchestra helping us to forget our ailments. There is also the family sentiment of the place which in a measure binds the guests to each other and imparts a feeling of oneness. Above all, and best of all, is the religious atmosphere which pervades the establishment,—the acknowledgment that God is over all, the giver and sustainer of our lives.

"We found a number of issues of the BATTLE CREEK IDEA awaiting our arrival, and it was a pleasure to point out to our boys the faces that we had learned to know and esteem. Of course, as our friends make inquiries, we talk Battle Creek ideas. When we took up the non-flesh diet we were ridi-

(Continued on page four)



A FLOCK OF OSTRICHES AT PASTURE

The Battle Creek Idea

PUBLISHED WEEKLY AT
BATTLE CREEK, MICHIGAN

SUBSCRIPTION RATES

One Year	\$1.00
Six Months50
Three Months25
Per Copy02

VOL. IV MARCH 17, 1911 No. 15

THE COLD-STORAGE EVIL

THE preservation of perishable food substances by placing them in cold-storage is, on the face of it, a beneficent provision, and has proven a very great benefit to housekeepers who desire to preserve such foods for a day or two in a comparatively fresh state. The domestic refrigerator has become a household necessity as an interposition between the consumer and the necessity of eating stale and partially perished foods.

But, like every other good thing, this provision is susceptible of very great perversion. Advantage has been taken of it by many get-rich-quick men who have undertaken to control the market for perishable foods, by purchasing of the producers at the very lowest possible prices, and holding the produce in cold storage, doling out only in such quantities as could be sold at the very highest prices that could be wrung from the people.

The enormity of this traffic is shown by the statement of the president of the United States Packing Company that "there are today 60,000,000 pounds of butter in cold storage, taken away from the consumers in the last twelve months." Over fifty thousand cases of eggs are held in New York, and all for the purpose of forcing the consumer to pay fabulous prices.

It is encouraging to know that Congress is to be asked to pass a law making such a traffic illegal. Speculation and gambling in the necessities of life should not be permitted. It is cruel and wicked, and entirely eclipses the natural law of supply and demand.

But there is another phase to the question that is of more vital importance, and that is the unhygienic condition of food that is very subject to decay, and held in suspension in a cool atmosphere. Deleterious changes take place in such foods, for the development of poisons is not wholly arrested. No food that is preserved in cold storage is quite as good as when it is fresh, even though the time of its preservation be very short. Deterioration begins at once, and goes on even under the conditions of a reduced temperature. Just to what extent fruits and flesh and eggs deteriorate is a matter of discussion, but no one denies the fact that cold-storage products are stale and greatly inferior to those which are fresh. And in the case of meat and eggs, the changes become very

marked and detrimental, the development of poisonous bacteria being only retarded, not arrested.

STATE CONVENTION OF THE YOUNG MEN'S CHRISTIAN ASSOCIATION

THE following program of the annual convention of the Y. M. C. A. of Michigan has been arranged. The services will be held in the Sanitarium chapel:

Convention Theme—"Utilizing the Forces."

Saturday Forenoon

Mr. R. M. Zug, Detroit, Presiding.

INVOICING

- 9:00—Song, Prayer and Scripture.
- 9:15—"The Biggest Business on Earth"—Dr. E. I. Bosworth, Oberlin.
- 10:00—"A Competent Manager"—Dr. Geo. L. Robinson, Chicago.
- 10:45—Business Session: Report of Nominating Committee, Election of Convention's Permanent Officers.
- 11:15—"Present Forces and Resources Adequate if Utilized"—Mr. David R. Porter, New York.
- 11:35—"Present Organization and Leadership Adequate if Utilized"—Mr. Amos Musselman, Grand Rapids.
- 12:00—Adjournment.

Saturday Afternoon

AN AGGRESSIVE CAMPAIGN

- 2:00—"Extending the Business"—Mr. Harry R. Horton, Kalamazoo.
- 2:30—"Cultivating New Territory"—Mr. W. H. Tinker, Ann Arbor.
- 3:00—Business Session: Report of State Executive Committee, Report of Committee on State Committee's Report.
- 3:30—"Building for Permanency"—Rev. J. Percival Huget, Detroit.
- 4:00—"Fired by Love of the Game"—Dr. Robinson.
- 5:00—Adjournment.

Saturday Evening

ASSURING SUCCESS FROM THE START

- 7:30—Training the Force—Dr. Bosworth.
- 8:15—Multiplying the Experts—Prof. Chas. O. Hoyt.
- 8:35—Preparing the Way—Mr. A. L. Parker, Detroit.
- 9:00—Adjournment.

Sunday Morning

INCREASING EFFICIENCY

- 9:30—Keeping in Touch with the Home Office—Dr. Bosworth.
- 10:30—Tapping New Resources—Dr. Robinson.
- 11:30—Adjournment.

Sunday Afternoon

PRODUCING RESULTS

- 2:00—Experiences from Men on the Road—Delegates.
- 2:30—The Force in Action—as Individuals—Dr. Bosworth.
- 3:30—The Force in Action—Team Work—Mr. W. S. Power, Detroit.
- 4:00—Adjournment.

Sunday Evening

DRAWING DIVIDENDS

- 6:00—Returns on the Investment Certain

—Mr. Clay H. Hollister, Grand Rapids.
6:30—The Greatest Reward—Dr. Robinson.
7:30—Adjournment.

It will be noticed that the leading speakers are Dr. E. I. Bosworth, dean of Oberlin College, and Dr. Geo. L. Robinson, of the McCormick Theological Seminary, Chicago. These men are celebrated teachers of the Scriptures and effective as writers. It will be a great privilege to hear them. The titles given to their addresses do not naturally lead to a full idea of the nature of the addresses. We are informed that Doctor Robinson will give a series of lessons on the Epistle to the Hebrews, and that Doctor Bosworth will also follow a scriptural theme. A cordial invitation to the meetings is extended to the public.

THE SANITARIUM FOOD DISPENSARY TO THE EDITOR:

I offer this as a report of work done at the Food Dispensary for the poor for the months of September, October, November and December, 1910:

Number baskets of food given away at room	3,052
Baskets delivered to homes	90
Visits to homes of needy	51
Meals given away at room	44
Garments given away	56
Fuel given to poor	\$4.25
Money given to help needy	\$5.10
Number of families dependent on food at date	23
Number of children being fed	62
Average number fed daily from food	115

One family contains eight children, and another has twelve, while two have six children each.

On December 24 we had a gathering of parents and children at food room to celebrate Christmas, about eighty-five being present, of whom sixty-eight were children. I had prepared for them a nice treat and a suitable present for all (thanks to kind friends). It proved to be a good affair. All were pleased and seemed to appreciate the favor.

Total number of baskets handed out to date	22,060
Total number of baskets delivered to homes	764
Financial help to poor	\$111.20

I hope in future to be used more abundantly in the good work than I have been in the past, scattering bread upon the waters in the name of the Lord.

LEWIS C. LEAKE.

A Letter from South Africa

(Continued from page three)

culed and laughed at all around, but now the people are asking for literature on the subject, and I am passing *Good Health* and the *BATTLE CREEK IDEA* along to them.

"I can not close this letter without mentioning with appreciation the uniform courtesy and kindness that was extended to us while at the Sanitarium by all, and each class of workers helped to make our stay pleasant. We thank you all and desire a long life and great usefulness, coupled with financial success, for the Battle Creek Sanitarium."

Original from

UNIVERSITY OF MICHIGAN

DOUBLED HIS EFFICIENCY

(Continued from page one)

the gentleman, who has come to see us again to-night and to report progress. I have the very great pleasure of introducing him to you,—Judge Goodwin Brown, of New York City.

HON. GOODWIN BROWN: It is quite true that anybody who has the misfortune to do business in the lower part of New York is always glad of a chance to get away. There is a good deal of "intellectual friction," as one of Dickens' characters has it, of a certain kind, down there, but we who are "in the grind" do not get the benefit of it, so we have to get out of town. So I was mighty glad to come up here again.

I think it was a year and a half ago that I

Came Here for the First Time.

I had heard of Doctor Kellogg from Professor Fisher, of Yale; and he wished me to meet him. But it was a long way off, and it hardly occurred to me to attempt the journey. One day I received a telegram to come at once to Mason, Michigan, and found to my delight it was within forty miles of Battle Creek, and after I had negotiated the affairs of the lunatic I had come to see, I came on at once. And I had the thing that I had long been looking for—a heart to heart talk with Doctor Kellogg.

I have had an experience which perhaps few people have had. For the greater part of my life I have had to deal with convicts and lunatics, and with matters affecting public health. But it never occurred to me that it was necessary to have a reform "within the party." You hear a great deal about "reform within the party," but nobody ever knew such a thing to occur. So that I was engaged for thirty years in the reforming of pretty nearly everybody else but myself, and meantime I was getting old, and incidentally getting fat, and very, very tired. And one fine day I woke up to the fact that I was

In Reality and in Appearance, an Old Man.

It was about five years ago when I had got into a condition where after a good, substantial meal,—one of those meals that you eat to keep up your strength—one of those nourishing varieties that the good housewife is so anxious that her husband shall have; I am only speaking now on general principles, for the idea prevails everywhere that no matter what happens, the man of the family, the breadwinner, must be nourished, and his strength must be kept up. I had had that sort of experience until there came a time when I wanted to lie right down on the floor after supper. You know I had "that tired feeling" that we have all experienced, and I might say that life had become a sort of burden to me; I weighed 190 pounds.

In fact, I made up my mind that I was, in the language of the day, "down and out." But one night my sister, who was always sending information in my direction because I was a favorite brother, and because I had always had a great deal to say about food for lunatics, gave me an article written by Professor Chittenden. And I read it. Talk

about the conversion of St. Paul! I do not think it was more sudden or complete than mine.

I Was Converted.

It was extraordinary, because I saw there was hope in it. I not only read the article, but I started right in. I was so interested I went to Yale and talked with Professor Chittenden about it, and talked to the whole staff on the subject. I read the works of Horace Fletcher and adopted the chewing habit; I reformed my diet, accepting the low-protein regime. I began to lose flesh, but still I kept right on, though I did get a little bit scared about it, because I began to lose considerably in weight, and people said, "Why, Mr. Brown, what is the matter with you? You are getting thin." But I replied, "I am all right."

So matters ran along, and after a while people began to ask me when I walked, if I were going to a fire, or if I had heard of a fire sale somewhere, or something of that sort, because new vigor and new life seemed to have taken possession of me. I persisted in my new ways of living, because when a reform strikes me it strikes in pretty deep. The work may not be complete yet, but it will have to come, I am satisfied; because if a person comes to this place to scoff, he is sure to remain to pray.

As I persisted in my reform, chewed my food with great vigor, one thing and then another began to disappear from my bill of fare. Potted fish, choice hams, went by the board, until it occurred to me that we might as well extend the reform a little further, and

We Cut Off the Meat Entirely.

And it was at that period that I came up to this place and had the talk with the Doctor. I had had my last meal of flesh food. You wouldn't believe it, to look at me, would you? But it is a matter of principle. I go

out once in a while to a dinner or the club, or something of that sort. And the guests say, "Well, now, you better just join." I say, "No, no;" for there is only one thing to do if you are really going to reform, and that is to reform; and one can not accomplish anything by going at it half-way. You can not live on bread and butter and coffee



Battle Creek Diet System

Kellogg's Vegetable

GELATINE

EXHIBIT "A"

Being direct from the vegetable kingdom, is absolutely free from unwholesome and diseased animal products. *Vegetable Gelatine* is made from a plant which has all the desirable properties of animal gelatine without any of its disgusting features. *Vegetable Gelatine* is only half as expensive as the animal product.

Send 15 cents in stamps for a full-sized box, postpaid, to—

The Kellogg Food Co.,

Dep't F-8

Battle Creek, Mich.



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 of this school with 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, \$40. 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.

and beefsteak on alternate weeks, and have any satisfactory results.

I have a habit, like most people, at the end of the year, of looking over the household accounts, and I happened to discover that the bills were coming down at a most surprising rate. Of course, we do have some regard for appearance. And though perhaps things did not look to some as luxurious as they might, in the meanwhile the vitality and the energy of the Browns were increasing. And they increased to such an extent that we thought it was

Worth While to Keep it Up.

And it has been kept up.

I confess that I am not anxious, and never was, to commit suicide for the benefit of my principles; but after talking with all the physicians that I knew in New York—I have a wide personal acquaintance with doctors—they all had to admit to me that it is not absolutely necessary to eat meat. I was going down from one of the asylums the other night, and one of the most distinguished surgeons of New York was on the train, and we discussed the matter. He tried to have a little fun over it at first, but we got into a serious talk about it. And he said, "Of course, everybody will have to admit that there is no necessity for people eating flesh food. Why, the strongest animals in the world are vegetarians."

He said incidentally, "Of course, I am going down to the Plaza as soon as I get off this train, and eat a red-headed duck and drink a pint of champagne." I said to him, "Doctor, you are right at the zenith of your power; you have a magnificent practice, and you are the pride of everybody that knows you; but you should remember that the reckoning time is coming. You are probably about forty-five years of age, and I will hazard a guess that at fifty-five, if you keep that up, you are likely to have incipient Bright's disease; and a little later the rest of it will come along."

So that this whole matter resolves itself into the query,

Does it Pay to be Good?

I recall a friend of mine, not as old as I am, that I meet almost every day on the street, being wheeled about by a nurse, who has not spoken since he had that stroke of paralysis, and never has been able to understand anything that has been said to him, with his earning power absolutely destroyed, and his family broken up, because he was a man who had not accumulated wealth, and lived out his salary and his earnings. I know another.

a lawyer, forty years of age. I called at his office one day to have a talk with his partner, and I said, "Where is So-and-so? I have not seen him lately." He said, "Why, didn't you know, he had a stroke of paralysis? He has not spoken a word since." He said, "I have never been able to find out anything about the business we have had together." He will probably live along for twenty or twenty-five years. It is that sort of thing which ought to appeal to people. It surely pays to be good to your body.

So I have come to the conclusion, after an observation covering a period of over five years, that it is almost wholly a matter of what you put into your mouth, of what you eat and drink.

As to my Methods of Living.

I will state that I rarely get to bed much before twelve o'clock, then I always have to do some reading. But at seven o'clock in the morning the chimes begin to ring, and I get up; then I have to spend an hour making my toilet, the most charming thing in the whole day. Let me tell you about my bath. I would not miss it. That is really near my heart. I have told you that eating is of some importance; but I believe that if Carnegie had erected a row of bath-houses from San Francisco to Montauk Point, interspersed with barber shops and bootblack stands, that something worth while would have been done for civilization.

But yet, if there is anything I have abhorred for about twenty-five years, it is a bath-tub. Three years ago I built a house, and it was noised around that Mr. Brown was building a large house up on Palisade Avenue, "and they do say they have not a bath-tub in that house." I built a little room, convenient to my own apartment, about five feet square, lined up in a waterproof way, with a nice floor, and furnished with about six feet of hose which is connected with a combination faucet. I can regulate the temperature and start in with water about as hot as I can bear it, and taper down, and wind up with about as cold water as we have it. I am bound to say to you confidentially, that anything that is colder than that does not appeal to me personally; but I do feel exceedingly good when I get out of it and it is all over, and I have a color that a sixteen-year-old youth might envy. And I really think it pays. When I get downstairs I look over the paper to see whether they have elected a senator or not at Albany, or whether I am involved in any scandal, for no one knows what is coming next; and eat no breakfast.

Then I start for New York at 8:30, get down about ten o'clock. Of course the stenographers and clerks are there and everything is all ready, mail is piled up, people drop in, and I get to work answering correspondence, signing checks, telephoning, counseling, etc., and about

Twelve O'Clock I Have My Lunch.


At first, to carry out this vegetarian principle, I would try to get hold of a vegetarian sandwich, but I could not find anything but slack-baked bread and a sort of crumpled lettuce leaf and some tomatoes; and after ineffectual conversations with several restaurant people around New York, I made up my mind I might as well have those sandwiches made at home; and we have a Russian domestic in our house, who has learned to make nut zwieback sandwiches in good shape, and she wraps them up in oiled paper, and while I am telephoning and dictating, I eat those sandwiches. Once in a while I go out to the club, for business purposes; but I eat those sandwiches.

At a quarter to five I start for Yonkers, and then at night I have a plate of pea soup, a baked potato, some beans or some peas, some bread and butter, and wind up with some steamed figs, and enjoy a social evening with my family and friends. And that is the life I live day by day.

I really come to you to-night as a sort of

Living Example of What Can be Done.

What I have done, any person can do. I am the oldest man in our office, and I am the most active. Of course, they all joke about



**TRY
A
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BISCUIT**


EXHIBIT "A"

Do not contain any drugs; they are simply a delightful cracker, crisp and wholesome, made from sterilized bran and wheat gluten. You'll like them first because they taste good, then you will like them because you will feel better—your bowels will be more regular and your brain clearer.

Send postal for sample of bran biscuit to—

**THE KELLOGG
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Battle Creek, Mich.



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 occur. The next class will be organized the first of April, 1911. For full information address

Sanitarium,

Battle Creek, Mich.

my eating a vegetable diet; but if there is any one thing below the sun that I firmly believe in, that is absolutely demonstrated, that is the thing. The reason that I have so high respect for this institution is that I believe it is doing more than any other in this country to teach people the right methods of living. And if one person out of twenty in this audience to-night goes away and carries these ideas with him, it is hard to conceive what the result will be.

REPORT OF CHAPEL FUND

THE Sabbath collections in the Sanitarium chapel are placed in what is known as the chapel fund, which is drawn upon to assist in various philanthropic interests. The following is the statement of this report for 1910:

Receipts from collections.....	\$393.61
Paid out for general missionary purposes, principally the Laymen's Movement	\$ 47.17
City Rescue Mission	10.71
Y. W. C. A. (this year \$15)	10.00
Personal donations	9.25
Y. W. C. A. of Atlanta (Colored) ..	25.00
Chicago Mission	57.00
Porto Rico Mission	36.78
Mountain White's School (Dr. Hayward)	40.00
Cripples' Home in China	13.00
Marshall jail work	27.60
Bethesda Home	57.80
Janitor	33.00
On hand	22.32

MORE and more the principles of right living are coming into appreciation by the people who think and are willing to abide by the dictates of that which tends to the greatest good of the individual. The fruits of self-denial are peace and happiness, and they are for those who keep their bodily demands under the control of their higher and better intelligence.

ARRIVALS

THE list of guests who have registered at the Battle Creek Sanitarium during the week of March 12 is as follows: L. H. Jones, Ia.; H. J. Phetepiece, N. Y.; H. Powell and wife, Toronto; Wm. J. Ladd, N. J.; Mrs. E. H. Mead and Mrs. C. E. Lawrence, Mich.; J. H. Struble, Mich.; Wm. Burtless, Mich.; E. E. Brook and wife, Okla.; B. Reynolds, W. Va.; Sam'l B. Kirkwood, Edith B. Kirkwood and Charlotte M. Brown, Chicago; E. H. Jones, Ia.; A. Goodholm and W. R. Lindenbloom, Okla.; Miss Vera C. Mack, St. Louis; Mrs. and Miss Corland, Toledo; J. W. Brown, O.; Mrs. R. A. McKune, Ia.; F. M. Knight, Mo.; Frank Schaettler, Wis.; Mrs. H. H. Horton, St. Paul; H. H. Boram, M. D., Mr. Klaphenshim and wife, Ind.; K. M. Pohl, Pittsburgh; Esther A. Niebel and B. H. Niebel, Pa.; E. A. Webb and wife, Minn.; M. L. Bragdon and Bertha Bertseil, Okla.; Miss Crackel, Ind.; Geo. Mahan and wife, Tenn.; Jacob and Joseph Lobensky, Grand Rapids; Ed. Fanning, Ill.; Paul Lawson and Will Lawson, Ia.; Mrs. Fred Van Orman, Ind.; F. M. Barnhart and Mrs. Thos. Thoms, O.; J. Frank Jugram, Burma; Joshua Burch and Della Burch, Mich.; Miss Maud Porter-

field, N. C.; Mrs. J. Smith, City; Mr. Lewis A. Miller and Miss Mary E. Miller, and Mrs. W. D. Buckingham, O.; Laura Riekey, N. J.; Mrs. F. Albrecht, Pittsburg; Miss Hilda Hansen and Miss Lydia Schreiter, Mich.; W. B. Burn, Kansas City; Fred Beyer, Mo.; J. E. Lane, Mont.; Jos. Kippend, Wis.; Chas. Hellgren, Chicago; Mr. and Mrs. W. L. Reed, Des Moines; B. B. Smith, Canada; H. H. Albert and H. A. Schiek, Ind.; J. M. Dary and wife, Rochester; M. J. Smith, City; Miss Frank Schaettler, Wis.; Mrs. W. S. Johnson, Indianapolis; Laura J. Kittle, Mich.; W. T. Wall, Ill.; S. A. Jenkins and wife, New York City; Luther J. Moore, Pa.; J. A. Caughren, Wash.; R. H. Holmes, City; R. W. Muns, New York City; Mrs. Elizabeth B. Foreman, Ky.; Mrs. F. J. Mean, Wis.; Dr. J. H. Crippen and wife, Ia.; Spurgeon Odell and wife, Minn.; J. A. Tilroy, Detroit; Mrs. H. S. Ambler, N. Y.; Frank B. Schatz, Milwaukee; David Lilly and Susan A. Lilly, Ind.; I. Brinker and wife, Tex.; Mrs. S. D. Hastings, Wis.; G. R. Ferguson and wife, La.; Mrs. C. B. Chinault, Tex.; W. A. Shelden, Jr., Mich.; Edgar F. Welch, wife and son, N. Y.; Mrs. Jas. K. Hall, W. Va.; Mrs. H. T. Coone, Cincinnati; Mr. and Mrs. E. F. Long, Mich.; G. E. Lancaster, Mich.; Mrs. H. L. Martin, Tenn.; W. G. Hovey, New York City; F. E. Browder, Minn.; Joseph Clark, Congo; R. C. Jefferson, St. Paul; Mrs. J. B. Dunlap, Siam; J. V. Byrn, Boston; P. H. Kirwan, Minn.; A. E. Johnson, Chicago; Mrs. E. Buckman, Grand Rapids; Mrs. D. C. Edwards, Fla.; H. B. Thayer, Detroit; Katherine McCosmick, Neb.; Bess R. Hall, Wis.; L. M. Dibble, Mass.; Miss L. Fuller, Pa.;

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.

Alice N. Way, Mich.; Harry E. Chase, Grand Rapids; Jesse Mack, Detroit; C. M. Frilbach, Toledo; C. R. Leonard, Detroit; E. M. Shepard, Ind.; Roy G. Byrn, Tenn.; W. D. Reeves, Ark.; L. L. Blood, Boston; Percy Herman and wife, Toronto; R. J. Sopping and J. A. Wernman, Pa.; Geo. Parrett and wife, Mich.; H. A. Ederline and Mrs. G. S. Loomis and children, Detroit; B. G. Tremaine, Cleveland; Wm. Westerman, Conn.; Walter C. Mack, Mich.; H. B. Thayer, Detroit; John Fletcher, R. I.; Jas. W. Sharp, Va.; Chas. Anderson, Ill.; Mrs. Adam Wackman, Mo.; C. W. Burdats, W. Va.; Karl Wackman, Mo.; John G. Morgan, Denver; A. L. D. Buxton, Mass.; A. E. Hanson, Minn.; J. A. Gilroy, Detroit; Henry B. Baker, Mich.; C. J. Lane, Cleveland; W. W. Grabe, Milwaukee; M. E. Burt, City; Mrs. C. S. Hefferlin, Mrs. H. D. Hefferlin and Miss Marie Hefferlin, Mont.

News and Personals

The daily prayer meeting in the Sanitarium is held at 12:30 in the fifth-floor parlor. The attendance is steadily increasing, and the Young People's Society of Christian Endeavor is showing great interest and helpfulness in it.

The annual State Convention of the Y. M. C. A. will be held in the Sanitarium on March 18 and 19. The convention will be preceded by a banquet in the city on Friday evening. We give elsewhere a detailed program of the exercises.

Mr. R. E. Moore, a valued member of the Sanitarium Orchestra, leaves for Davenport, Iowa, in a few days. He has been a member of the Sanitarium family for ten years, having served as clerk and bookkeeper, and for the last seven years was a member of the orchestra.

The Sanitarium Christian Endeavor meeting was held in the chapel on Friday evening. The subject was, "Aid for the Tempted," and was ably led by Mrs. Breneman and Miss Cramer. There was a good attendance and several members took part in the exercises.

The many friends of Mrs. Maria Edwards, M. D., will learn with sadness of her death, which took place at the St. Helena Sanitarium in California. She was a graduate of the American Medical Missionary College, and was highly esteemed by all who knew her.

We are glad to have with us again Mr. B. G. Tremaine and Mr. F. S. Terry with his secretary, prominent business men from New York and Cincinnati, who annually visit the Sanitarium for a period of rest and treatment, and are warm friends and admirers of the Battle Creek methods.

Mr. A. C. Johnson, of Chicago, Passenger Traffic Manager of the Northwestern Railway, is spending the week ends at the Sanitarium while his wife is here as a patient. We are pleased to report that Mrs. Johnson

is making improvement, with a good prospect for full recovery from a long and serious illness.

On Sunday evening Elder McCoy spoke in the parlor on the subject of "Christian Perfection." There was a large audience, and the speaker based his remarks on the words, "Be ye therefore perfect." He said that there is only One who is perfect, but a true Christian is always advancing toward perfection.

The Domestic Science class will begin a dietary study at the East Hall dining-room, for one week, by which they will determine the average food consumption per capita, cost per capita, and the proportion of waste, and compare conditions under the new cafeteria plan with those existing last year under the old regime.

A very fine concert was given by the Sanitarium Orchestra on Tuesday evening in the lobby, under the direction of Mr. William Drever. The program included the well-known "Poet and Peasant Overture"; the Quartette from Rigoletto; the beautiful Waldteufel Waltzes, "Violets"; "My Hero"—the popular song from "The Chocolate Soldier"; "Avalon"—Intermezzo.

The present week is a busy one for those Battle Creekites who are bent on getting all the good things that are going. We have the Modern Woodmen here, with a reception in the Sanitarium on Tuesday evening; Booker T. Washington on Wednesday evening; Judge Blair, of Adams county, Ohio, fame, on Thursday evening, in a lecture in behalf of the temperance campaign; Y. M. C. A. Convention on Saturday and Sunday.

Booker T. Washington lectured in the Tabernacle on Wednesday evening, his subject being "The Progress of the Negro Race in the South." A very large audience gathered to welcome and honor this recognized leader of his race. Doctor Wash-Doctor Kellogg, whose boyhood home was well known as a station on the underground railroad, but he was welcomed and honored by the whole city for the noble work which he has accomplished as an educator and a philanthropist.

The Social Hour on Wednesday afternoon was well attended. Mrs. Busch presided at the piano and Miss Doremus gave some beautiful selections on the banjo, which won enthusiastic and hearty applause. Dr. Graham Lee entertained the audience with numerous selections from "The Real Diary of a Real Boy." The witty recital of the real boy's sayings and doings and the incidental glances into family and political life were most amusing. Doctor Lee also rendered a vocal selection which he had, especially adapted to the Sanitarium audience, and which was exceedingly appropriate and pleasing to the large number of appreciative guests who were present.

The fraternal association known as "The Woodmen of the World," which is holding its convention this week in Battle Creek, vis-

ited the Sanitarium on Tuesday evening. There was a delegation of about two hundred, who were conducted through the building, and afterward had a stereopticon lecture in the gymnasium, which in the absence of Doctor Kellogg, was given by Dr. A. J. Read. By means of the pictures the visitors were shown a great many of the interesting features of Sanitarium methods and treatments. Much valuable information was also given upon dietetics, the abuses of alcohol and tobacco, and the scientific prevention and cure of disease. The visitors expressed themselves as greatly pleased with their visit to the Sanitarium.

Doctor Read lectured by appointment of the Educational Secretary of the Y. M. C. A. in Jackson, Mich., on "Cigarette Up-to-date." In this meeting the Y. M. C. A. seated their large gymnasium and threw open their doors to the public, special invitation tickets having been distributed to the grammar and high school pupils. The gymnasium was packed, a large number of people standing in the galleries and on the main floor, who listened with closest attention throughout the lecture. The speaker presented the popular opinions in regard to the cigarette as gathered from recent news items and editorials, quoted the action of prominent railroads in prohibiting the use of cigars and tobacco among their employes, and accompanied this by a report of tests that he had made with the perimeter.

Hon. C. E. Townsend, U. S. Senator from Michigan, was this week a guest of the Sanitarium for a few days, having been a victim of lagrippe, which was epidemic in Washington. During his stay Senator Townsend was much benefited healthwise and expressed himself as very favorably impressed with his experiences and observations at the Sanitarium. On Saturday evening, after earnest solicitation, he addressed a large audience in the parlor on the subject of "Good Government," in which he asserted that all good government was dependent upon good citizenship, and that it was the business of good government to make good citizens in order to perpetuate itself. The address was replete with sound sense and was received with profound interest by the hearers.

An interesting address was given in the parlor on Sabbath afternoon by Mrs. Arthur H. Smith, of China, who with her husband has been a missionary in that country for thirty-eight years, and has witnessed great transformation during that time in the country and people among whom they have labored. Her subject was, "The Great Revivals of the Orient," and the address consisted very largely of personal experiences and incidents in connection with the remarkable manifestations of spiritual power that have recently been seen in Korea, China and Japan. Doctor Smith is the author of a number of books on China, and perhaps no other American understands better the conditions and the people of that land than he. Doctor Smith is detained at the Sanitarium for treatment for his throat, and is making good progress toward recovery. He and his wife make their genial presence to be felt throughout the institution in many ways.

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The Progress of a Race

Booker T. Washington Visits the Sanitarium and Speaks in the Chapel of the Work in Tuskegee

At the Tuskegee Institute we are trying as best we can to fit men and women for service to our race, and for service to the white race. We began in Tuskegee in 1881 with one teacher and thirty students. The number of students has gradually grown until

Good Government

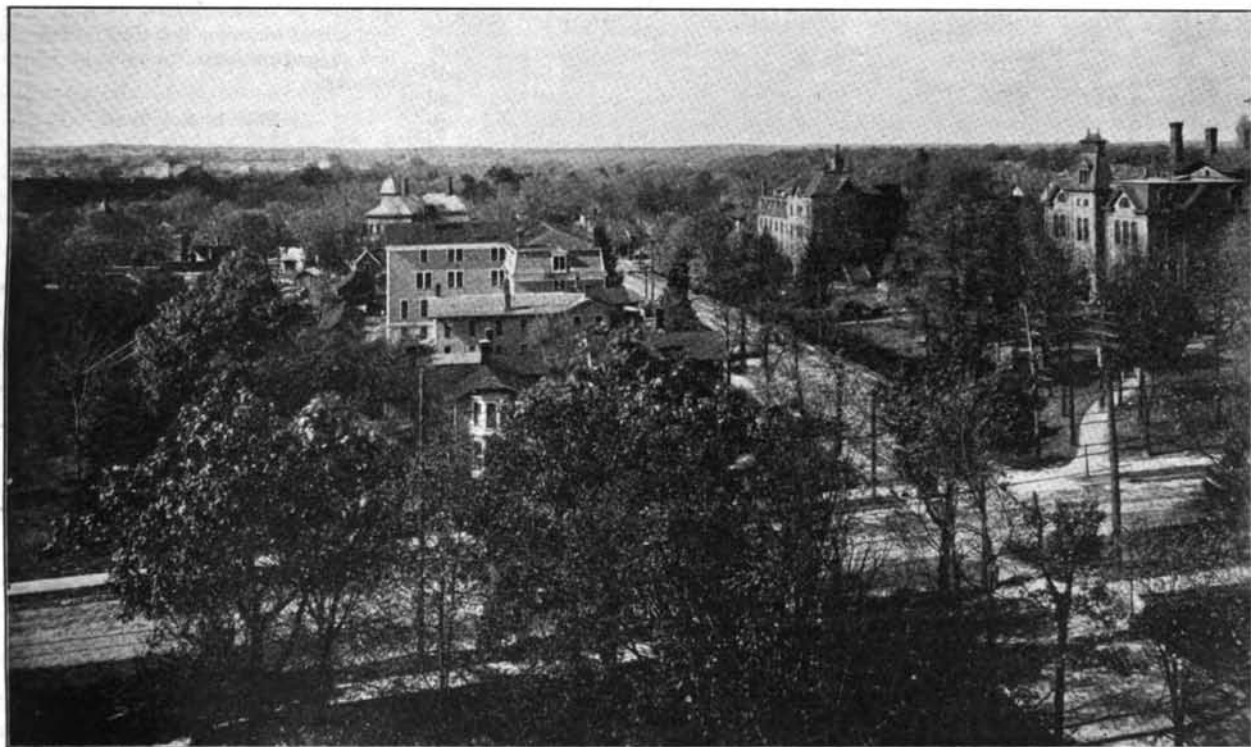
Abstract of an Address Delivered in the Sanitarium Parlor by U. S. Senator Chas. E. Townsend

LADIES AND GENTLEMEN: I have lived for a good many years near Battle Creek, in Jackson, Michigan, and yet I have to acknowledge that I knew very little of what was going on at this Sanitarium. I was proud of it in a general way, as every Michigan

What to Do to Be Saved

How to Escape from the Ills that Flesh is Heir to—How to Use and Not Abuse Our Digestive Apparatus—Taken from a Lecture by Dr. Kellogg

WHAT shall I do to be saved from this awful liver of mine, from this terrible stomach that is making my life miserable, from these horrible nerves? These are questions that are being asked us every day. Our doc-



LOOKING WEST FROM THE SANITARIUM DINING ROOM

we have between 1,600 and 1,700 men and women, and so earnest are our people in their endeavor to get an education that we have to refuse admission to a large number every year.

(Continued on page two)

man is proud of any great institution of our State; but I can truly say now, after having lived here for several days past, that it is one of the great institutions of Michigan, second perhaps to no other one, because it

(Continued on page five)

tors are appealed to every day by somebody who wants to be saved from the consequences of his own wrong-doing.

The majority of people believe that no matter what a man does to his stomach, no matter what he does to his liver, no matter

how much he abuses himself, if he can only find the right doctor, or the right medicine, he can by some sort of hocus-pocus be cured of the results of his transgressions. That man might just as well expect to be able to get out of prison by rubbing some kind of liniment on the bars of his cell. People expect to be cured by something they can get out of a bottle. Why, my friends, curative power, healing power, is creative power. There is no power in a bottle, or that you can put into a bottle, which is capable of creating or healing a man; for it takes the very same power to heal a man that it does to create him. It takes exactly the same power to keep a man alive that it did to make a man live in the first place. It is just as great a marvel that a man remains alive, that he lives from moment to moment, as it is that the first man was ever created.

Life is a Miracle

Every moment of life is a miracle. Did you ever reflect that the blood that fills our arteries is dying at the rate of eight million blood-cells every second? The blood lives only six weeks. Somebody said the body is renewed once in seven years. The major part of the body is renewed much more often than that. A biologist has described an animal as a stream of matter passing through certain forms.

The Body is a Furnace,

and food is fuel. Four-fifths of all the food we eat is burned up to keep us warm. Another fifth of it is used in energy production. A small amount of it is used for the purpose of replacing tissue. The living tissue of the body, the muscles and brain, the parts that think and the parts that act, are composed of protein; and these parts waste slowly. In our foods we have starch, albumin or protein, and fats. Those are the chief food principles. The starch and the fats are used for fuel, burned up. They can not become brain, they can not become bone, they can not become muscle; they are not the right sort of material for that purpose; they are converted into heat and energy. Starch, sugar, and the acids of fruits,—these are all burned up in the body to produce heat and energy.

The protein has another purpose. It takes the place of the wornout, wasted, and lost structures of the body.

Here is a Locomotive

pulling a heavily loaded train. It stops frequently to take in water and coal. The coal is to be burned in the furnace to produce heat to keep the people warm and to produce energy to pull the train. After the locomotive has been running a few hundred miles, it is taken off the train, put into the round-house, and there it is looked over, and its wornout or lost parts are replaced. Those are the metal repairs. That is the protein, if you please; protein is the metal repair stuff for the body.

I do not suppose that locomotive, running a trip of 200 miles, would ordinarily require more than ten or fifteen pounds of metal repairs, barring accidents. Suppose it required ten pounds of steel and brass; but it has burned up many tons of coal. The case is the same with the body. So you see why

it is that we do not need very much protein. A man who sits down at table, makes his dinner out of fish, beefsteak, roast lamb, fowl, and various sorts of meat is just as foolish as a locomotive engineer who would fill up his tender with bits of cast iron, or pieces of iron rails, etc., and throw them into the furnace of his locomotive. He would soon have the fires choked.

It is Exactly So With the Body;

a man who eats a large quantity of meats gets perhaps ten times as much protein as he needs. The arrangement in the order of nature is, that the vegetable world stores up energy for the animal world to use. Animals are machines for using energy. Vegetables present a wonderful provision for storing energy. You know about the storage battery. An animal is a machine doing work, while the vegetable is stored-up energy. Feeding an animal with another animal is like feeding one machine with another machine. It is like firing a furnace with old stoves and kerosene lamps. There is a little fuel in the lamp, or a little coal in the stove that has not been used; but there is a lot of material there that is not fuel. So it is important for us to study this matter of food, and to adapt to our bodies the proportions of various food principles which we require.

The average man does not pay any attention to this; and for that reason we find a great many people over-fat; they eat too much carbohydrates, too much fat and fat-building material. And we find another man with brown rings around his eyes, and big brown spots on his hands, perhaps, and with a dingy skin. That shows he has been taking too much protein. A coated tongue and a bad breath, dingy, sclerotic skin, and eruptions upon his skin,—these are all indications of an excess of protein. Dr. Duncan Bulkley, of New York, found out more than thirty years ago that he could not cure people of eczema unless he made them stop eating beefsteak, smoking cigars, and drinking tea and coffee. He published that in medical journals thirty years ago, and he has republished it a good many times since then. While not an advocate of a fleshless diet, he found that he had to deprive patients that had eczema of meats in order successfully to treat them, and the reason was that the persons who lived on a meat diet took an excess of protein.

You can readily see that since

There is Protein Enough in Bread,

and all we need in potatoes, and an excess in beans, if a man eats meat in addition he is getting more protein than he needs. Lean meat has the same chemical composition, whether it is an ox or a sheep or a pig or a dog or a man; so if an ox can make muscles and support strength, and an elephant or giraffe can get all the great strength it possesses on the low-protein diet which they are satisfied with, of leaves, twigs, and grass, certainly we ought to be able to find in the natural elements of the earth and the natural products of the soil all we need; and there is plenty there.

It becomes perfectly evident to every reasoning man and woman that the continued practice of clogging the system with foods that are not needed in the body, and can not

be utilized is a most pernicious one, and can only result in dire evils. It is coming to be more and more fully realized that in this practice we have the principal source of the chronic diseases that are making such terrible inroads into human longevity, and hurrying the race down to death.

If men and women would be saved from their diseased stomachs and livers and nerves, let them give to these organs an ordinarily fair show for their lives. Let them study to make it easy for these important agents to do their work, and not presume upon them by forcing them to do far more than they should be required to do in eliminating poisons that are needlessly thrust upon them until at last, overworked and exhausted, they have thrown up the job and have left their owners in a bad shape for living and getting along in life. The large amount of protein food taken into the system is the source of active poisons which permeate the tissues and interfere with the vital activities.

THE PROGRESS OF A RACE

(Continued from page one)

At Tuskegee we have kept one or two definite objects in view: First, trying to teach the dignity of labor; second, trying to give to these people skill by which they can earn their living. Then we are trying to give them rational ideas of moral and religious life. Sometimes people suggest to us that we place so much emphasis upon the industrial side of education that they fear we overlook or underestimate the value of religious training.

This is Not True.

Tuskegee is not denominational, but it is a thoroughly religious and Christian institution. We keep in mind in dealing with our race that it is a pretty hard thing to make a good Christian out of a hungry man; at least we have found it so. I do not know that you have ever experienced this. Whenever a man is hungry I always watch him,—watch the hungry colored man, and the hungry white man, too. Some time ago, when we had our annual farmers' conference at Tuskegee, one colored man always came and made the same speech—he always encouraged the raising of pigs in his community. And this old fellow would say, "Mr. Washington, I thank God that the colored people in my community are making progress, great progress."

And I finally said, "Uncle Jake, how do you know they are making progress?"

"Because they are raising more pigs than they used to raise."

"Why are you so interested in your colored friends owning pigs?"

"Because I find when my neighbors raise their own pigs, I can always sleep better every night."

There is a good deal of philosophy beneath that remark, whether you apply it to black people or white people. The thing we are driving at at Tuskegee is to teach our people to take life as it is there, to take conditions as we find them right about us, to take ordinary labor, dignify it, purify it, until it becomes attractive. I believe that in weaving the ordinary vocations of life into education,

or education into them, we can put a lot of morality and good religion into that kind of education.

We have not built up the institution at Tuskegee in an easy way.

We Have Had Struggles

and difficulties to overcome. I remember that very soon after I went there I called the boys together and said, "We are going to have buildings here, and we are going to put them up ourselves, with our own hands." It is sometimes easier to say we are going to do a thing than to do it. I got a pick and shovel and went out on our farm to find some brick clay. After searching some hours I found some that I thought would make bricks. After two weeks we had 50,000 bricks made, —we called them bricks, though they did not look much like them. I had never been in a brickyard in my life. After we had them moulded we began to build them into a brick-kiln. We got it half done when by reason of our ignorance and lack of experience it fell down.

I said, "Boys, try it again." Then we got 60,000 moulded for a second kiln, and when it was nearly completed it fell down also. I told the boys we would have to keep at it. They had faith in me, and the next time we got a still larger number of bricks moulded, got the kiln built and put a fire under it. I shall never forget that about three o'clock in the morning a boy knocked at my door and said the brick-kiln had fallen down.

By this time

I Did Not Have a Cent of Money.

I read in the Bible about making bricks without straw. I'll tell you something harder than that—making bricks without money. I did have a watch which a friend had given me. I took that watch to Montgomery, forty miles away, and soon the pawnbroker had the watch and I had eleven dollars.

In making the fourth brick-kiln we succeeded and the manufacturing of bricks was established. By the labor of our students, we have manufactured bricks from that day, until the past season we manufactured three million as good bricks as you will find anywhere. I learned a lesson from this—never to get discouraged regarding the Tuskegee Institute; never to get discouraged regarding the future of our race.

We turn out from Tuskegee Institute every year a number of men and women trained in books, in the Bible, and in the common vocations of life. The most interesting and encouraging thing is to note the spirit with which they go out from Tuskegee; not with the idea of surrounding themselves with riches and comforts, but with

The Idea of Being of Service

to somebody else.

Some years ago I had the duty of calling a young girl into my office and of saying to her that she could not be graduated with her class by reason of some failures. She turned to me with a beautiful spirit and said, "I am disappointed because I can not be graduated, but I am going to try to teach what I have learned here; I am going to try to be of service to some one." With those words she left our institution. She asked us to find a place for her where the people were so ignorant that she could teach them something.

She went some miles into a rural district where they had but three months' school in the year in an old log cabin, and began to teach.

She did not stop with her school work, but went into the cabins of the people, found out their weak points and strong points, got the confidence of the mothers and fathers. Very soon she invited them to meet her one night in the week in her log cabin schoolhouse, and in these meetings she taught them better methods of agriculture, how to spend their money to better advantage, how to stop throwing away their money for things they could do without. Very soon, with her guidance and teaching, they began to erect a schoolhouse. Within two years they had built, furnished, and paid for a neat, comfortable frame schoolhouse. That work has gone on during a period of eighteen years, and to-day you will find the people in that community owning their land, living in comfortable houses, the school in session eight months in the year, and

enough to ask that girl to return to us, stand upon our platform, and receive the diploma which we should have given her before she left us.

I could give many instances showing how they are going out from Hampton, Tuskegee, and several other institutions in the South (Tuskegee is not the only one by any means doing this kind of work) with the same ideas, the same spirit, accomplishing the most beautiful results. The girl to whom I referred worked three years, never receiving more than \$8.00 a month, and still she was one of the happiest human beings I ever saw.

Some people refer to that kind of thing as

"Making a Sacrifice."

At Tuskegee we never talk about making sacrifices. I never made a sacrifice in my life. Any person who has the privilege of rendering service to his fellows never makes a sacrifice. The individual to be pitied is the one who lives for himself; the one to be envied is the one who has learned the glory, the sat-



BOOKER T. WASHINGTON AND HIS WIFE.

A Complete Revolution

in the industrial, educational, moral and religious life of that community.

I wish you could go, as I go constantly, into the sections where our men and women are at work, and see farms well operated, the people living in comfortable houses, nine-tenths of them owning their houses and farms; I wish you could see their churches, Sunday schools and day schools. After going into that community and seeing the improvements that had taken place I turned to the teacher and asked her if she could not tell me in detail how the improvements had taken place. She took a memorandum book from her desk and gave it to me.

I found during that year one person had contributed fifty cents, one person one dollar, another a bushel of corn, another two chickens, one a fish, one a dozen eggs; and then the teacher opened a door and showed me two bales of cotton. She said, "I close school at two o'clock and ask the larger boys and girls to remain, and with our own hands we cultivated the land around the schoolhouse and grew the cotton. We will sell it and put the proceeds into the further up-building of this school." We have been wise

isfaction, and the beauty of living for some one else.

The more experience I have with the world, the more I am convinced that the one thing worth living for and worth dying for, if necessary, is the privilege and the opportunity of making some human being more happy and more useful. That is one of the glories just now in belonging to the race to which I belong. There are ten millions in this country, the majority of whom have what the average man counts a hard time. But no man is to be pitied because he belongs to a race which has a struggle before it. I like a struggle;

I Like Something to Overcome

That constitutes one of the glories of belonging to this race just now. The colored people are engaged in that interesting process of getting lands, getting houses, building schoolhouses, getting teachers, having ministers; of starting life for the first time. It is a great privilege to have a part in the engineering of the life of a people during that interesting experience through which we are now passing; it is a great privilege to

(Continued on page four)

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"THE UNFENCED LIFE"

THE above phrase originated, probably, with George Eliot, and suggests many practical thoughts on the very face of it. We talk about "letting down the bars," which means to leave an opening in the fence. Every well-ordered life is a fenced-in life. There is a barrier erected around every life that is pure and effectual, fruitful for good, or successful in any walk or calling. This barrier is to guard the life from the invasion of evil. In ancient times it was necessary for people to dwell in cities. Houses were never isolated on farms as we have them. Marauding bands of robbers, and invading armies of surrounding tribes and nations were always watching for an opportunity to rob and plunder, which made it necessary to group houses together and encircle them with high and formidable walls. Then at night the gates would be shut, and with watchmen posted on the walls, the inhabitants could sleep in comparative safety.

These conditions do not exist in the public life of civilized communities, but they do exist in individual life, for the individual is always surrounded by the elements and agents of death and disease, and by influences seeking to gain admission which would undermine soul and body. The strongest and most effectual defense any person can erect about himself is an intelligent knowledge of his friends and his foes, and a firm determination to discriminate between them. The line can not be drawn too strictly against those invaders which would destroy physical and mental and moral life and vitality. Nobody can afford at any time to let down the bars to any form of evil or gratification that is inimical to the welfare of the body or the soul.

Ample protection is provided by a good and wise Providence for both soul and body, for we are endowed with sound minds capable of controlling and guarding the avenues that lead to the citadel of life. There is no valid excuse for anyone going wrong in these days of light and knowledge. It is simple recklessness, or premeditated ignorance that misleads men and women now.

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 topics.

Q. Since meat contains poisons which have produced cell-death in the meat, are not our bodies poisoning themselves all the time by cell-death?

A. To be sure. A great English physiologist many years ago made this statement: "The body is a factory of poisons"; so the body is producing poisons all the while. We are poisoning ourselves all the while. When a man sits down in a close room, and is doubled up over his desk working, he is poisoning himself very fast. When he is outdoors exercising in the open air, breathing deep breaths, aerating his blood, then he is not poisoning himself very rapidly; but we are continually poisoning ourselves; and that is why we die of old age ultimately, because we can not keep up the purifying process. We are getting just a little behind all the while, and by and by we get so far behind that we die of poisoning.

Q. Is it not more logical to say that these waste products are simply negative waste matter which cause no harm except the slight effort of elimination?

A. No, that is not the right thing to say at all, because they do do harm. They are deadly poisons. Carbonic acid gas, for example, is carried off through the lungs. If that accumulates in the blood for three or four minutes, the animal is dead. How black in the face a baby gets when it is coughing, perhaps, or crying and holding its breath. When a person has been down in the water for three or four minutes, he is almost certainly dead. Very few people can hold the breath even so long as one minute, because the poisons accumulate in the body to such a degree that the demand for air becomes imperative and we can not resist it. But the poison which is eliminated through the lungs is only one poison. Other poisons come out through the skin. Bouchard showed that seven different poisons are eliminated through the kidneys, every one of them a deadly poison, carried off through the kidneys, and these poisons, some of them, produce coma; some of them produce the effect of an opiate; some of them produce the effect of an excitant like strychnia, and cause spasms; some of them produce a fall in temperature; others produce a rise of temperature.

Q. What do you think of a city that carries its water from the mains to the faucets in lead pipes?

A. It is a very convenient thing to do, but it is a very unhealthy thing to do, and people are being continually poisoned in such a city as that. The small amount of lead from the pipes, used day after day and day after day, has the effect to harden the arteries, in-

jure the liver and produce serious disease. It is very important that everybody who lives in the city should remember, in going home when the house has been shut up a little while, to let the water run past until he is sure every bit of water that was standing in the pipes has been exhausted.

Q. What is the purpose of taking Colax?

A. To furnish bulk for the intestine to act upon. It is a very good thing for sedentary people, people whose intestines do not act with a proper degree of celerity. It also holds moisture. One part of Colax will absorb ten parts of water; so it prevents the intestinal contents from becoming too dry.

Q. How can tapeworm live in the intestines?

A. The tapeworm possesses the power to live in the intestines of an animal, and can not live anywhere else, because the tapeworm has no stomach; it hasn't any digestive organs at all. It can only absorb food that has been digested by some other animal; it is a parasite. It is like these parasitic plants that grow upon other plants. They put their roots down into the tree and steal the elaborated foodstuffs which are in circulation in the sap of the tree, that has been digested in the roots of the tree; so the tapeworm is a parasite, and it lives upon the food which has already been digested by the animal upon which it is parasitic. The tapeworm, I should say, can not live in the stomach. If the tapeworm were in the stomach, it would be digested in the stomach by the acid gastric juice; but it can live in the alkaline fluids of the small intestine.

THE PROGRESS OF A RACE

(Continued from page one)

have a part in sending out such men and women as we are sending out from Tuskegee, Hampton, Fisk University, Snow Hill Institute, Talladega College, and the other institutions, to help lift up some one else, and you can depend upon it that the man who helps lift up somebody else, lifts himself up most of all.

We Are Making Progress in the South

the colored people are making progress; the white people are growing more liberal in their attitude toward the colored people. You hear of lynching the colored men, but you do not hear of those who are standing by the colored people, helping them get land, helping them to educate themselves. I was asked on my way North to stop off one train, by men who wanted to see me about the organization of a religious training college in Nashville for the colored people. Every man in that committee was a white man; in most cases they themselves were sons of slaveholders. The Southern white people are growing in breadth, and in their interest in helping up the colored man in proportion as he grows, and in proportion as we grow more useful. Negro and white together are going to solve all our problems.

I thank you over and over again for the hearty, kindly reception received here. I feel more encouraged by reason of what I have felt and experienced here than I have

in many years. I go away with a heart filled with gratitude, and if in God's good providence I am able to come again, I assure you that I shall be most glad to do so.

GOOD GOVERNMENT

(Continued from page one)

has occupied a field peculiar to itself.

I believe it was assigned to me to say something on "Good Government." Every intelligent person understands that

Government is What Makes Life Worth While,

and that without government there can be no such thing as freedom in the true and high sense of the term. It is true that when a man becomes an integral part of any community regulated by law, he gives up certain natural rights which he possessed, and submits to the requirements imposed upon him. We know, of course, that the things he sacrifices are most undesirable when compared with the privileges which he enjoys as a part of society, being protected in life, liberty, and the pursuit of happiness.

The two great enemies of life, liberty, and the pursuit of happiness are ignorance and vice. How easy it would be to govern a community if every man was good and every man was wise; because, being good, he would only ask for what is right, and being wise, he would only ask for what is good. In such a community there would be very little need of laws to enforce action, or to secure the rights of the individual and make life desirable.

I have been connected with the federal government

In the Lower House of Congress for Eight Years.

I have had some insight into the motives which move men and institutions to action. I understand somewhat the source of the demand for laws. I recognize the fact that men are not all good, and many of those who are seeking legislation at the hands of Congress are not doing it in behalf of the greatest general good; but too frequently, back of these demands is the selfish idea, the notion of realizing something that would be to the advantage of the recipient and therefore very generally to the disadvantage of other people.

The Ideal Government

is that where rights and opportunities are impartially distributed; where every man who complies with the conditions of good government has exactly the same opportunity that every other man has. And yet it is not the one that always prevails. And do not understand me as finding fault with Congress. I think we are too prone to criticize public men. In the minds of a great many people the public official is at least very closely related to a rascal. I want to say to you, after eight years of experience in the national Congress, I do not think you can pick out 391 members from any profession who will rank higher than the members of the House of Representatives as at present constituted.

A man goes down to Washington to repre-

sent his people or community. The people demand certain things of him. He is supposed to be their representative. You will find him between contending forces. One party demands a certain thing and another denounces it.

The members of Congress represent their constituencies, and there will be honest representatives if there are honest constituencies. When the people understand and demand only what is right, what is wise in the

ought to turn our boys and girls into good citizens, not simply men who are looking for the dollar, not simply men who are taught that success means the amassing of a fortune; but boys who grow into men who believe that on these shores we are working out the experiment of popular government, which means the highest possible condition of man.

We demand that our politicians represent us in Congress and in public life, and yet we devote our energies to amassing a fortune.



A SANATORIUM FOR TUBERCULAR PATIENTS.

highest sense, we shall have most of the problems of good government solved.

Good Government Means Good Citizens, wise citizens. I think our fathers got a glimpse of it when they said we must establish our government upon morality and intelligence. If the school is a good thing, it

We have no time to devote to the study of the questions which make eventually for good government. We know little about them. We criticize our statesmen for certain things they do, and we have neglected, in the first instance, to do our duty, because our representative will reflect the width and the morality and intelligence of his constituency.

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 of this school with the Battle Creek Sanatorium 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, \$40. 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.

I am very, very glad to be here and to have this opportunity. I am going away tomorrow improved in health, and I am quite sure that I shall be very glad to come back; and I certainly wish for all of you—who are the healthiest lot of invalids I ever saw in my life—health and prosperity in whatever you do. I hope when you leave this place you will carry away with you something of its teachings, and that the lessons will mean a little more sunshine, and long life and prosperity to you all.

ARRIVALS

THE list of arrivals at the Battle Creek Sanitarium for the week ending March 19 is as follows: John Brown, O.; F. S. Terry, New York City; L. B. Hunter, Cleveland; Wm. Burtless, Mich.; Thomas Buelley, O.; F. S. Carmon, Ill.; C. E. Hutchinson and wife, Neb.; C. M. Ishman and C. P. Ishman, Des Moines; Ben Freedman, Mo.; M. N. O'Connor, Chicago; O. A. Wheaton, O.; A. Weyl, St. Louis; Mrs. Chas. Anderson, Ill.; James Kenan, Chicago; Fred W. Kary, Mrs. W. W. Strayer and Mrs. E. Mackin, O.; Mrs.

Cora H. Oxner, China; A. B. Alexander, Pittsburg; J. W. Ohlman, S. Dak.; S. H. Madden, Tex.; B. Tanenbaum, New York City; Bessie Way, Mich.; Della Burns, Chicago; Edw. N. Paxton, Mo.; Gregg Beams, Ky.; P. B. Fellwick, Ind.; D. H. Murphy, M. D., Mich.; R. B. Moore and wife, Detroit; Mrs. H. J. Stevens, Mich.; L. E. Carpenter, Ind.; H. Seade, N. J.; P. W. Flicker, Cleveland; R. A. Down, O.; Mrs. R. E. Skeel and daughter, Cleveland; G. Y. Van der Vliet and wife, and John Van Appeldoorn, Mich.; Geo. Mahon, Tenn.; Eugene Buchanan, Ill.; E. L. Adams, Toledo; Mrs. Phillip Frederickson, Ill.; Mrs. D. A. Greene, Toledo; A. C. Johnson, Chicago; F. E. Thomas, Ind.; Mr. and Mrs. G. H. Williamson, N. Y.; Mrs. J. F. Shepherd, Mich.; W. H. Angell, Syracuse; E. T. Ingham, Conn.; Mrs. I. Robbins, Mich.; F. O. Biteman, O.; James Pryor and Estelle Pryor, Mich.; J. W. Brill, Chicago; John A. Gowan and Carlton Gowan, Mich.; Booker T. Washington and Nathan Hunt, Ala.; H. L. Stephens, wife and son, Toronto; Paul R. Harris, Ind.; Mrs. D. T. Saunders, Mich.; F. M. Barnhart, Edgar Hadley and H. F. Haines, O.; J. E. Buck, Ark.; Geo. Mahon, Tenn.; E. G. Lancaster, Mich.; Dr. A. E. Awde, N. Y.; Guy

R. Lind, Chicago; Rev. A. McLean, Cincinnati; Heyman Shapiro, N. Y.; D. H. Jackson and wife, S. Dak.; H. L. Turner and wife, Mrs. R. F. Powers and Paul Hollis, Ark.; Mrs. L. H. Bixby and maid, and E. W. Bixby, Tenn.; Frank Miller and wife, Ill.; Harrish Heald, Grand Rapids; Mr. and Mrs. W. A. Cotton, Neb.; Ely Harris and R. J. Carland, O.; H. A. Shiek, Ind.; Mrs. Geo. T. Tanner, Indianapolis; F. W. Church, Canada; Arthur D. Bate, Mich.; G. G. Evans, Detroit; A. G. Young, John Bennich and F. C. Weinberg, Mich.; Geo. L. Robinson, Chicago; Isabel McIsaac, Mich.; Mrs. David Inglis, Detroit; Ed. Lang, J. P. Ohmer and H. H. Albert, Ind.; B. B. Johnston and Mrs. Johnston, H. L. Markell, R. D. Tucker, Jno. W. Adams, Fred Herman, Jr., W. G. Wright, C. A. Harris and R. J. Ritz, Mich.; Edith Merkle, Pa.; Mrs. H. S. Richmond, N. Y.; Wm. D. Fox and wife, Detroit; M. J. Shroyer and C. R. Wilkes, Mich.; F. C. Laslette, Ill.; E. F. Barooth, O.; A. C. Johnston, Chicago; Orange Markey, O.; Amos Markey, O.; W. B. Holden, M. D., Oregon; J. D. Lawton, Arnold Obsdyke and Frank H. West, Grand Rapids; J. T. Earl and son, and Dr. J. de Funk, Ind.; F. Hull, Kans.; H. W. Smith, F. B. McComb and E. D. Warner, Mich.; Harry E. Chase, Grand Rapids; M. A. Flinman, Rochester; S. D. DeGorst and Henry Eyer, Grand Rapids; E. G. Lancaster, Mich.; Wm. S. Powers and wife, and Mrs. Seidle, and J. A. Ward, Detroit; W. S. Ryan and R. B. Brown, Mich.; Fred Butler and wife, New York City; John C. Coburn, Kalamazoo; A. H. Finna, Detroit; J. E. Gill, Kalamazoo; D. S. Fleming and F. G. Johnson, Mich.; Mrs. G. F. Sanborn, baby and nurse, Ore.; Miss N. E. Evans, Mo.; W. W. Nichols, New York City; W. W. Paxton, Mo.; E. H. Anderson, Mich.; B. Willis, Chicago; B. A. Barber, Mich.; John G. Morgan, Colo.; W. H. Tinker and C. W. Wagner, Mich.; Geo. B. Eaton, Grand Rapids; Agnes Carpenter, Miss.; Jos. S. Robins, A. R. McKinstry, T. R. Hurst, H. W. Bardly, E. W. J. Benn and Wm. N. Whean, Mich.; W. H. Shookelfort, Mo.; Dr. F. E. Moyer, Ind.; W. W. Smith, Detroit; Howard Kibbell, Arthur Devine and A. T. Benson, Mich.; J. D. Dodson, Tenn.; Ralph Yanker, D. R. Marks and Dwight Harwood, Mich.; C. C. Barnes, K. S. Dean, J. C. Shedd, Amos Maywood, Homer C. Woismadon and G. A. Gilroy, Mich.; Estelle A. Bode, Cincinnati; J. A. Van Dis, Kalamazoo; C. L. Rowe, Flora C. Buell, Mrs. T. A. Etter and T. A. Etter, Mich.; J. C. Field, A. B. Bull and wife, A. L. Parker, C. F. Surtzer, Chas. H. Meeker, Chas. H. Hunt, Mich.; Edw. Tanis, Jr., and Jno. W. Van Brook, Kalamazoo; L. L. Tyler and wife, F. P. Knapp and Ely D. Miller, Mich.; Mrs. Geo. L. Maltby, N. Y.; D. T. Strong, Maurice F. Gogle, H. H. Luchtwardt, Louis N. McKnight, Chas. E. Parker, J. G. Jenkins and R. N. Sellon, Detroit; W. G. Masen, V. O. Scoufield, N. L. Huffaker, G. A. Jackson and E. C. Hobart, Mich.; Mrs. Thos. H. Cannon, Chicago; Mrs. John A. Lineback, Ia.; M. W. Paxton and Mrs. Mary Welch, Mich.; W. P. Behan, Chicago; Clay H. Hollister, Grand Rapids; J. Atwater, Ill.; J. V. Burns, Chicago; F. A. Chadbourne, Wis.; F. T. Crown, O.; D. D. Starr, Ark.; J. B. Brown, F. A. Poole and wife, and C. H. Johnson and wife, Mich.; Geo. W. Baylis,

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

Good reading for the Home Circle; Helpful, Interesting, Instructive. Fifty cents per year. To Foreign Countries sixty cents. Sample copies free. Note the Combinations offered above.

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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 occur. The next class will be organized the first of April, 1911. For full information address

Sanitarium,

Battle Creek, Mich.

H. C. Tanis, A. Grover, E. J. Cook, Mrs. Wallace G. Wright and Miss Lucile Ladd, Mich.; E. C. Buss, Mich.; A. Lee, Jr., Mass.; K. H. Warren, Mich.; Jno. N. Corland, Toledo; J. M. Hiens, Mr. and Mrs. J. D. Wallace, C. E. Rowe, A. L. Benton and Walter A. Gossell, Mich.; Forest Crooks, City; R. D. Bailey and wife, Mich.; Mrs. A. J. Dribs, Ala.; Mrs. Robert Reinecker, Miss.

News and Personals

The noon prayer meeting is held daily in the fifth-floor parlor and is increasing in numbers and interest.

Rev. A. H. McLean, D. D., of Cincinnati, Secretary of the Christian Board of Missions, arrived at the Sanitarium on Monday, where he will spend a few weeks in rest and recuperation.

Mrs. L. H. Bixby and her son, Mr. E. W. Bixby, from Chattanooga, Tenn., are at the Sanitarium. Mrs. Bixby is an old friend of the Sanitarium, and after spending a time in rest and recuperation here, intends to spend a year with her son on a ranch in Idaho.

Judge Clark and his daughter have returned to their home in St. Cloud, Minn., being accompanied by Mr. S. J. Alden, one of our medical students, who will remain for a time to continue the course of treatment which has been pursued while in the Sanitarium.

Dr. W. B. Holden, of Portland, Ore., paid a short visit to the Sanitarium, where he was warmly welcomed by his many friends. Doctor Holden is a practicing physician in Portland, and does much surgical work in the Sanitarium of that city.

The dispensary in Chicago, under the auspices of the Sanitarium, reports the work steadily increasing under the care of Dr. A. J. Wood and his sister, Miss Emma Wood, the head nurse. Religious services in charge of Mr. and Mrs. E. B. Van Dorn are also well attended.

The annual meeting of the Michigan State Nurses' Association will be held in Jackson, Mich., on May 3, 4 and 5. A most interesting and profitable program is being arranged, which will be published later. It is advisable to begin planning now to attend this important and interesting gathering.

Mr. T. E. Buck, a prominent business man of Pine Bluff, Ark., and Mr. H. L. Turner, a retired business man of Warren, Ark., are making their first visit to the Sanitarium, being friends of Mr. C. H. Owen, of Pine Bluff, an old friend of the Sanitarium and through whose recommendation they are here taking treatment.

Mrs. Cora H. Oxner, a missionary of the Southern Baptist Convention in China, is visiting the Sanitarium. Her husband was for many years a well-known medical missionary in that field, and they have been associated with Rev. J. B. Hartwell and daughter, who was so much beloved by the Sanita-

rium family during his recent furlough spent here.

Miss Isabel McIsaac, the Interstate Secretary of the National Nurses' Alumnae Association, spoke to the nurses of the city and Sanitarium in the Sanitarium chapel on March 17. The address was of special interest to nurses. Mrs. M. S. Foy, superintendent of nurses, presided and introduced the speaker. There was a good attendance from both the city and the Sanitarium.

The Y. M. C. A. of this city is trying to raise \$8,000 to cover a two years' budget. Mr. W. T. Perkins, the State Secretary of New York, is here assisting in the undertaking; and in connection with this special services were held in the churches throughout the city, at which addresses were made by several of the delegates to the Y. M. C. A. Convention which was held in the Sanitarium.

Dr. Arthur H. Smith, of China, who has been for some few weeks a patient at the Sanitarium, in response to a very urgent invitation is going to New York to be present at the missionary authors' banquet, and to give one of the principal addresses in the closing meeting of the great series of Women's Jubilee meetings which have been held throughout the country from the Pacific to the Atlantic.

The W. C. T. U. of the city and the Sanitarium held a joint meeting in the Sanitarium parlor on Sunday, at which Mrs. A. H. Emmons presided. The first part of the

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
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	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.

program was devoted to reminiscences of Neal Dow. The vital question for Calhoun county and her sister counties was forcefully brought to notice in a convincing appeal by the Rev. Brown, of Marshall, who urged a large attendance at the polls, to prevent a return of the licensed saloon to our midst.

Excellent reports are coming from Dr. Carolyn Geisel and Miss Evans, who have now entered their last week in the Florida Chautauqua, where the people have listened with deepest interest and enthusiasm to a course of lectures in "Health and Hygiene" which has been both theoretical and practical, the demonstrations being much appreciated by the crowds of people who have eagerly gathered to learn how they might increase their health and efficiency.

Mrs. Professor Ramsdell, of Albion College, Mich., accompanied by eight of the young ladies from the college, spent a most enjoyable day on Thursday in visiting the Sanitarium. After dinner they were conducted over the large buildings and studied in some detail the various departments. They were much interested in what they saw and heard of the methods and treatments employed in the Sanitarium, and expressed themselves as highly delighted with their visit.

Among the prominent men seen and heard in the Y. M. C. A. Convention were: Dr. G. L. Robinson, of the McCormick Theological Seminary of Chicago; Prof. E. I. Bosworth, Dean of the Theological Seminary of Oberlin, O.; President Lancaster, of Olivet College; Clay H. Hollister, a well-known banker of Grand Rapids; Mr. W. G. Mason, the International Secretary of the Y. M. C. A., who is just now engaged in special evangelistic work, and Mr. Yale Parker, a prominent business man of Detroit; and Prof. J. C. Shedd, of Olivet, Mich.

Among the new arrivals are Mr. J. D. Dodson, postmaster of Kenton, Tenn.; Dr. F. F. Church, Aylmer, Que.; Atty. W. D. Fox, of Detroit; Mr. P. H. Flicker, member of a well-known insurance firm from East Cleveland, O.; Mr. R. B. Moore, a traveling salesman of Detroit; Mr. B. Tanenbaum, an embroidery manufacturer from Brooklyn, N. Y.; and Dr. C. H. Murphy, of Byron, Mich. Other recent arrivals are: Mr. M. A. Lane, an old friend and patron of the Sanitarium, who was accompanied by his friend, Mr. F. M. Caldwell, a journalist of Kalamazoo; Messrs. M. W. and E. M. Paxton, sons of Mr. J. G. Paxton, of Independence, Mo., who are taking a course of treatment at the Sanitarium. Their father has long been a warm friend and admirer of the Sanitarium and its methods. Mr. Jas. A. Pryor, of Houghton, Mich., is again with us, accompanied by his daughter.

On Wednesday afternoon in the parlor, Mrs. C. S. Thorpe, of the Woman's National Press Association, gave a comprehensive talk on "The Initiative and Referendum." That the measure, wise and proper in itself, is susceptible of abuse was demonstrated at the last election in South Dakota, where under its operation fourteen lengthy

measures were presented to the voters for adoption or rejection. Several of the measures were trivial, and it is believed were brought up for the purpose of confusing the voters by their multiplicity and by this method to defeat the two main issues—local option and woman suffrage. Additional political machinery is not so much needed, in Mrs. Thorpe's opinion, as an awakening of the voters to their civic duty, leading them to take an active, intelligent interest in the questions of the hour and to get out to the polls on election day.

"Battle Creek principles," said Booker T. Washington on his recent visit here, "are constantly gaining ground in the South as well as elsewhere."

"How is it in your institution, Mr. Washington, do you not use large quantities of pork and other meats?"

"It is true," replied the teacher, "that in past days the people of the South used very largely of bacon, but in recent times this custom is giving way before a better knowledge. In our institution we use little of pork, and the man who has charge of our food department told me when I was last at home that we are using less and less of meats; that no special measures had been taken to bring this about, but gradually the students and others are coming to care less for it. For my own part, I eat but very little meat as I travel about, and am very much in sympathy with the teachings and customs of the Sanitarium. Battle Creek principles are rapidly coming into recognition."

The Christian Endeavor meeting on Friday evening was led by Mr. Gordon Adams, the subject being "Money: Its Good and Evil, Dangers and Uses." The meeting was very interesting and profitable. A great number of the members took part in the discussion, and Rev. Mr. Laslette spoke very earnestly on the tithing of our money for the Lord's work and gave some telling illustrations, as did also Rev. Mr. Thomas. The music was especially good, the violin being played by Miss Babcock, the cornet by Mr. Devault, and Mr. Peter van Daele at the piano. A very fine solo was rendered by Rev. Mr. Thomas, who travels with "Billy" Sunday, the noted evangelist. Mr. Thomas also told some interesting incidents of Mr. Sunday's work, especially dwelling upon some converts who had consecrated large sums of money to the evangelistic work. The consecration meeting is to be held next Friday and will be in charge of Doctor Eggleston.

On Sunday evening in the parlor, Elder McCoy presided over a very interesting service which was held under the auspices of the delegates to the Y. M. C. A. Convention. Mr. Stanchfield, of Hillsdale, Mich., gathered a fine body of young men who described the different phases of work done among boys of the Y. M. C. A. organizations. After a season of singing and prayer, Elder McCoy introduced the speakers as follows: Mr. J. A. Van Dis, State Boys' Secretary of Michigan, who spoke of the boys' work in Y. M. C. A.; Mr. Knight, of Detroit, spoke of the educational work; Mr. Busse, of Adrian, told what was being done in the physical work,

while Mr. J. C. Field, of Jackson, dwelt upon the religious aspect of the Association work. Mr. Jenkins, of Detroit, spoke of the work among the railroad men; Mr. Miller, of Lansing, described the city work, while the country work was spoken of by Mr. Rowe, the State Secretary of County Work. These short five-minute talks were intensely interesting and gave a beautiful outline of the various avenues opening up whereby they might reach boys and young men. The boys' association has now introduced a strong physical as well as educational department.

As was announced last week, the Sanitarium received, on March 15 and 16, a visit from that most notable of all living Negroes, Booker T. Washington. This was his first visit to Battle Creek, though in its earlier days the town was prominent in anti-slavery matters, and furnished an asylum for fugitive slaves on their way to Canada. Professor Washington was given a hearty welcome by the entire Sanitarium family, who recognized in him one of the benefactors of mankind, a man whom Providence has raised up to take upon his large heart the needs of his people, and to bear upon his broad shoulders their burdens. Although in the city less than twenty-four hours, he gave three public addresses. The first was before three thousand people in the Tabernacle, the second in the Sanitarium chapel in the early morning, the third in the High School building at 11:00 A. M. Doctor Washington received liberal assistance for his work while here. Mr. D. K. Cornwell who resides at the Sanitarium, gave \$10,000. Three other gentlemen gave \$500 each. Two gave \$100 each, and the general collection brought the donations up to about \$12,500. We are able to give to our readers the address delivered in the Sanitarium chapel, which will afford an insight into his phenomenal work.

It is rare that the termination of the hundred year period which Christian nations term a "century," marks the end of a definite section of human history. A notable exception, however, is found in the close of the 19th century, which witnessed the great "Boxer" uprising, China against the world, the like of which was never seen before, and which, it is safe to say, can never be repeated. The story of this unique epoch is told in two octavo volumes (recently added to the Sanitarium library) written about ten years ago and published by the Fleming H. Revell Company. They are provided with numerous illustrations, as well as with excellent maps of Peking, of the Legation area, and of the region between Tientsin and Peking. Without these maps it is impossible to get any adequate notion of what the relief of the Legations involved. At a time when our relations with the Orient are becoming more and more intimate and important, it is desirable that Americans who wish to be well informed should know enough of past events to form an intelligent opinion as to the relations which should exist between China and America to-day. This work bears the title, "China in Convulsion," and is the gift of Rev. Arthur H. Smith, of China, the well-known missionary, author and lecturer, who is at present taking a course of treatment at the Sanitarium.

THE BATTLE CREEK IDEA

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NUMBER SEVENTEEN

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PUBLISHED WEEKLY AT BATTLE CREEK, MICHIGAN. MARCH 31, 1911

Raising the Standard

**Miss Isabel McIsaacs, Interstate Secretary
of the National Nurses' Association,
Lectures to Nurses on Organization
and Progress in the Profession**

THE nurses profession is growing to include a tremendous army of women. I think the last census makes us number 100,000, and 100,000 people, be they nurses or soldiers, are capable of doing tremendous things. But we are not doing them, by any manner of means, and it has come to be a question as to how we can best bring that great body of women together to do things for themselves.

One of the things I will speak about is organization. There are certain nurses who are always asking,

**What Will Organization Do
for Me?**

We are a civilized people because we are an organized people; without organization we would be savages. The savage of remote ages counted every other man his enemy and fought to defend and protect himself. Gradually they learned that if two men worked together they could protect themselves better than if each worked for himself. Later they found that even more could work together to advantage, and they had clans, and after hundreds of years came the combination of clans into nations.

We have evidence of wonderful organization all about us in the common things of life. Just think of the organization it means to carry a letter from your hand into the middle of China or Africa. We do not mean by organization just the system, we mean the ability of people to work together, and the respect

(Continued on page three)

Curative Agencies

**Employed at the Battle Creek Sanitarium. Measures Used in
Treating the Sick.**

THE Battle Creek Sanitarium does not represent any special cult in medicine nor confine its treatments to any one specific agent or method. It is not devoted to any
(Continued on page six)

Pawlow and his Experiments

**Dr. J. H. Kellogg Relates How the Famous
Savant Observes the Gastric Opera-
tion and Extracts Gastric Juices
for Medicinal Purposes**

I DESIGN to tell you of the work of Professor Pawlow of St. Petersburg, probably the greatest living authority on the stomach and its work. On my last visit to the Continent I went to see the famous doctor and was very cordially received, and was given the very best possible opportunity to observe the work that is being carried on by Doctor Pawlow and his assistants. Dogs are chosen as the subjects of his experiments, and as the medium of his production of stomach fluids which are extracted in large quantities and sent out over the world.

The Stomach of the Dog

varies but little in shape from the human stomach. The human stomach is physiologically divided into two apartments, the cardiac stomach, nearest the entrance, and the pyloric stomach next to the outlet. And the stomach of the dog is like it and lends itself readily to experiment. A partition is made in the stomach, which is divided into a large part and a smaller part, the latter known as the *kleinemagen* or "Pawlow's Pouch." An opening is made in this small stomach, and the mouth of it is attached to the skin, and the physiologist uses this small stomach for his observations and experiments while the dog uses the other part for the purposes of nutrition. The dog gets along all right and is just as healthy as any dog; it does not seem to mind this little change in its anatomy at all, and the investigator has the best of oppor-



PROFESSOR PAWLOW, OF ST. PETERSBURG

tunities to observe all that is going on and to watch the digestive process by observing what takes place in this little stomach.

For instance, the dog is given meat, and as soon as the food comes in sight the gastric juice begins to flow, and soon begins to trickle out of the little stomach, when it falls into a receptacle and is utilized for experimental or medicinal purposes. If the dog be given bread the effect is the same, and almost almost any kind of food which the dog likes will excite the flow of the gastric fluid.

The eating of fats will not cause the flow of gastric fluid.

See What a Practical Lesson

we have from this; it is a lesson which explains many of the symptoms you have experienced in the past. Some of you have found out long ago that doughnuts, rich cakes and pies, and all that sort of thing did not agree with you. You became bilious after taking these rich foods. Now we see the reason for this. Gastric juice does not

after having swallowed a large quantity of cold water at your meals you have a very sour stomach, and it is because the deluge of ice water has caused a great out-flow of the acid juice of the stomach. It was formerly supposed that cold water stopped the flow of gastric juice, but now we know that it causes it to flow. The cold water prevents the gastric juice from entering into the process of digestion so that it remains free in the stomach, and becomes extremely acid, irritating the stomach walls and causing inflammation of the mucous membrane. The drinking of cold water at meal time does not cause the food to ferment, but it produces an unusual flow of the gastric juice. So it is very evident that people suffering from acid stomachs should take little water with their food, since we now know that dry food will relieve the sour stomach.

Pawlow Made Another Interesting Experiment

which I will mention right here. He dis-

along with their meals is detrimental rather than beneficial to their digestion. Almost all the laxative mineral waters are alkaline. In this statement I do not include the pure waters such as Poland and Waukesha waters, which are simply pure waters, slightly hard. But the taking of mineral water which contain soda, renders digestion difficult or greatly disturbs it.

Baking powder, I know, makes housework light and easy, it affords an opportunity for dodging pains and care, but it affords a very poor method of preparing food, one which would better be replaced by more pains-taking effort. If the ladies present wish to learn this better method, let them go to the cooking school where they will be taught how to make the lightest and most delicious breads without either baking powder or soda. The cakes and the breads on our tables contain no baking powder. It is unnecessary to employ it.

Another Interesting Discovery

of Pawlow's was that different kinds of food produce different kinds of gastric juice. He found, for instance that when meat is taken into the stomach the gastric juice poured out is extremely acid, so strong that if the tongue were but touched to it it had a flavor of hydrochloric acid, of a strong solution of sea-salt, or muriatic acid, which is but another name for the same thing. On the other hand, when bread is in the process of digestion, the gastric juice that was poured out was but slightly acid, but had great digestive power. When milk was put into the stomach the flow was lessened just in proportion to the amount or proportion of fat that was present. The more fat, the less gastric juice. These are great foundation facts upon which we may build many dietetic rules.

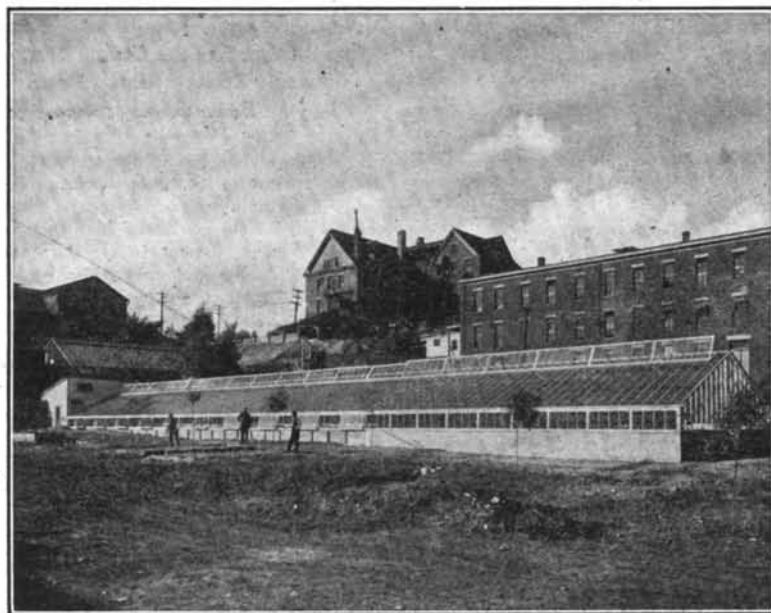
Another important thing brought out by Pawlow is

The Influence of Mastication Upon Digestion.

Each little bundle of muscles in the tongue ends in a small round point on the outside surface of the tongue. These comprise the papillæ of the tongue, and give to its surface the rough appearance it bears. The papillæ are formed by little groups or masses of these points. Around each one of these papillæ is a trench, and we discover that when food is chewed and reduced to a fluid state some falls into these trenches where there are taste buds, which, come into contact with the food and at once recognize its quality. These taste buds are there for the purpose of inspecting the food, and the report of their findings is at once communicated to the brain and from there the stomach is immediately informed of the kind and quality of food that is coming, and notified to get ready to receive and care for it. So while the food is still in the mouth being masticated, the preparation for its digestion is going on in the stomach. Gastric juice adapted to that particular food is being secreted in abundance.

Gastric juice that is produced in the early part of the meal, and while the food is still in the mouth is the most powerful and important of all. Dr. Haenecke, Professor Pawlow's assistant, said to me that the "appetite juice" as it is called, has been found to be the most powerful of all.

In order that the "appetite juice" should be produced while the food is being chewed,



A SANITARIUM GREENHOUSE.

digest fats, and so, when we eat these fat things, no gastric juice is required for them and none is produced, and so, in some manner, the presence of fats in the stomach discourages the production of gastric juice. Consequently, the food lies in the stomach undigested, and soon begins to ferment and to decay; there is no gastric juice to disinfect the food. One of the important functions of the gastric juice is to disinfect foods that are liable to fermentation, and thus prevent the growth and development of germs; and this not taking place, decomposition and putrefaction begin and continue all the way down the intestine, so the bilious attack, so-called, is really an attack of acute auto-intoxication.

Pawlow Has Made Very Many Discoveries

Here is one for instance: A pint of water taken into the stomach will cause a profuse flow of gastric juice. Some of you who are troubled with hyper-acidity remember that

covered that when a single grain of carbonate of soda is added to a pint of water, and the water drank, the stomach produces no gastric fluid at all. It is important to remember that while plain cold water will cause gastric juice to flow in great abundance, the addition of a little bicarbonate of soda will prevent any flow at all. Soda and baking-powder biscuit, griddle cakes, and all sorts of breads made of soda or baking-powder contain bicarbonate of soda, and everyone of them inhibits the flow of gastric juice, thus opposing good digestion.

When the stomach is making too much acid and becomes painful we may neutralize it for the time being with soda; but the average man needs all the gastric juice he can get, and when the stomach is discouraged by the introduction of soda, baking powder, or alkaline mineral waters, the work of digestion is being seriously hindered. A good many people drink mineral waters for their digestion without knowing that alkaline waters taken

It is Essential that the Food be Relished.

Food that is not relished and welcome does not cause the gastric juice to flow in anticipation. There must be an appetite for food. The mere moving of something in the mouth will not cause gastric juice to flow, but if the food is received with a keen relish, and with delight, then it flows abundantly.

It is an Interesting Fact

that if the dog is irritated in any way the gastric juice will not flow. And that agrees with the experiments of Professor Cannon of Harvard. He placed a cat under an X-ray so that he could see the stomach and intestine. He gave the cat some bread and milk containing bismuth, which made the food visible under the X-ray. The stomach began its work, contracting and manipulating the food, the intestine began its work, and everything was going on nicely. The cat was purring in comfort after her good meal, when the Professor pinched the cat's tail, and there was a cry of pain, and at once the stomach and intestine came to a standstill, and did not move again for a half hour.

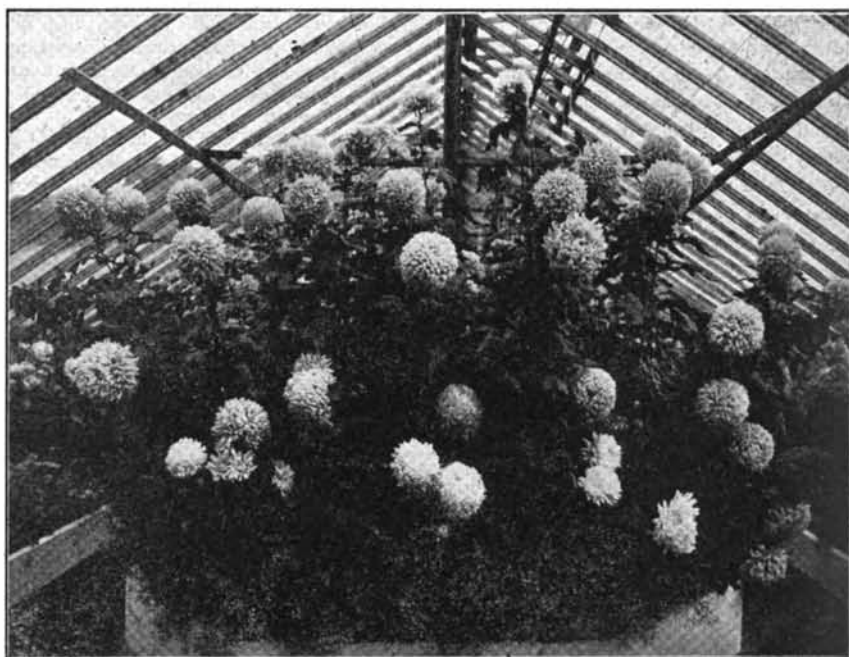
By this we perceive how important it is that the mind be in a pleasant frame when food is being eaten and digested. Conversation at the table should be of a pleasant and agreeable nature. No animosities should be aroused by discussions or otherwise, nor should there be unpleasant episodes or anger manifested.

I remember a mistake we once made here many years ago in having the mail distributed at the breakfast table. A lady sitting at one of the tables was eating and chatting pleasantly, having a good time and a good breakfast, when the boy brought a letter and laid it by her plate. She opened it and read, "Baby is very sick; come at once." She quickly arose and before she could fairly reach the door the stomach emptied itself. The digestive process was not only interrupted, but wholly reversed.

No one can digest food when he is angry, or in a state of great depression of mind. Many digestive disorders, in fact, come from that very thing. People should divest their minds of unpleasant emotions, unpleasant ideas, and of unpleasant impressions, when they sit down at the table.

Now, Pawlow found out some other things. He made a very interesting experiment in the matter of diet. This experiment related to the liver rather than to the stomach. The liver, as you know, has for one of its principal offices the elimination of poisons from the blood. Very clear proof of this poison-destroying function of the liver is afforded by this experiment which I saw made in Pawlow's laboratory four years ago. There is a large vein called the portal vein that carries the blood to the liver. The portal blood is gathered up from the stomach and intestines, carried up through this portal vein and is filtered through the liver before it can come in contact with the rest of the blood of the body. Now this experiment consists in joining the portal vein to the ascending vena cava below the liver, so that the blood passes into that vein and does not pass through the liver at all. Thus the blood that comes from the stomach and intestines containing the food elements as they are absorbed there, dodges

past the liver, and goes straight into the circulation. A dog that has had this operation performed is sick for a day or two, but he gets well and begins to eat. Everything goes along all right; the dog is just as happy as any other dog, provided its diet is right. A dog whose liver has been sidetracked in this way, gets along just as well as any other dog so long as it lives on a diet of bread and milk; but when that dog is fed meat, in three days it is a dead dog. No dog has been known to live more than three days on a meat diet after having had that operation performed. Why?—Because he is poisoned to death. There is a poison in meat which kills the dog when he does not have his liver to help him out. Typhoid fever would kill us off quick if we did not have the liver to help us out. When we eat beefsteak we are just as much dependent upon the liver to save our lives, for in three days' rations of beefsteak there is enough poison to kill a man



CHRYSANTHEMUMS IN THE SANITARIUM CONSERVATORY.

if he did not have his liver to destroy these poisons and thus save him from death.

Pawlow made some discoveries in relation to the secretions. He found that the pancreas as well as the stomach is controlled by the sepsyche centers; so while the food is being chewed in the mouth, the pancreas is getting ready. You sometimes have smelled dinner cooking, and it smelled so good, you said the smell of it made your mouth water. Sometimes the sight of food will make the mouth water. When the mouth waters, according to Pawlow's observation, the stomach waters the pancreas waters, and all the digestive glands are watering at the same time. So you see how important it is that the food should be inviting to the eye, that it should be savory and pleasant to the smell; that it should have properties which will stimulate the gustatory sense. In cases of hyperhydrochloria the food should be taken in a soft state, and should be chewed little, to avoid stimulating the stomach.

RAISING THE STANDARD*(Continued from page one)*

that one nation has for the mails of the other nations. It is within 200 years that our post-office system as we know it to-day was established. Our great railway system and our public school system are evidences of wonderful organization.

When We Come to the Professions

we see organization in all the higher professions; and the profession we know most about, that of medicine, has its town, county, state, national and international organizations. What is it for? For two reasons: To keep these professions on a high plane of efficiency for the public good, and to protect and help the members. And for these very reasons the nurses need to be organized.

We have a great many problems, and no

one is going to solve them for us, we must do it ourselves. Our standing in the community, state, or nation will be what we shall make it. The question we need to think about more than anything else is, "What is the standard going to be in the future?" So often our nurses complain that the laity and the medical profession are not interested in what the nurses are going to do. Why should we expect the medical profession to solve our problems for us? They are our own affairs and we as intelligent women can and ought to solve our own problems. The unit of organization among nurses has been the Alumnae Associations. They have done splendid work. Out of them has grown

Two Associations

—the National Alumnae Association and the Society of Superintendents of Training Schools for Nurses. The latter is a very

(Continued on page four)

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THE COMING BATTLE.

ANOTHER test of strength between the forces of liquor and temperance is fast drawing on in many localities. Next Monday, April 3, the popular vote is to decide the character of many communities, whether they shall be dominated by the liquor interests and debauched by its corrupting influences, or whether soberness and industry shall prevail. We well understand that the most of our readers are on the side of sobriety and against the liquor traffic in any and all of its phases.

The liquor traffic is so pernicious in its effects upon a community and so disastrous in its effects upon its victims that it is a wonder that it should for a moment be tolerated in any community where there is the least regard for human life or happiness, respectability or religion, purity, or anything else that is high and good. But bad as it is, it is entrenched behind some claims that appeal very strongly to the ordinary mind.

The principal defense of the liquor traffic is, no doubt, the money that is involved. But in this business the money consideration is altogether on one side. There are large profits in this business for the producer and the dealer, but no one can show that there are any profits to the consumer. It does nothing to increase his bank account, it does nothing to fit him for better and more labor, it does nothing to make him efficient in his profession or calling, it does not prolong his days nor nourish his strength. No one will undertake to show that intoxicating liquor ever did one of these things for its victims. It does the very opposite in every case, diminishing his bank account, consuming his strength, taking away his nerve, destroying his efficiency and usefulness, and shortening his life. Those who get rich out of the liquor traffic do so at the expense of the very life and blood of their fellow-creatures. No matter how many men can find employment in a traffic that thrives in the destruction of life, it is a curse, and the more men it employs the greater is its curse.

The next most potent argument used in the behalf of such a business is that of personal liberty. Men claim the right to do as they please with their own selves and rebel at any effort to control them. But this argument fails when it claims the right to permit men to destroy themselves or to allow others to destroy themselves or to allow others to

destroy them. And the argument loses its force entirely when we consider that the men who demand the right to degrade and destroy themselves do not perish alone, but involve in their own ruin those innocent ones dependent upon them, to whom they owe the most sacred obligation of care and protection. No man has a right deliberately to incapacitate himself to perform the duties he has taken upon himself. Drunkenness does incapacitate a man for all the duties of father and husband, and renders desolate and drear the home of which he is rightful guardian. Will any one contend that a man has any right to do such a thing? that he has any right to place himself in a condition where he can no longer perform the duties of a guardian to his family, and thus subject them to poverty, disgrace, ruin and destruction? Surely not. And if any man insists upon taking to himself any such liberties, let him be restrained by the power of the law. Better permit a man to commit suicide out and out, better allow men to rob on the highway, than to do such awful deeds as demon-possessed men, made insane with liquor, perpetrate upon their defenseless wives and children in the name of personal liberty.

Then let every man who has a vote to give and a chance to give it on the side of sobriety and purity not fail to do as at the very first occasion, and on every occasion thereafter until the dreadful curse shall be banished from our land.

RAISING THE STANDARD

(Continued from page three)

small society, necessarily consisting only of the heads of schools, but is influential in our cause.

My personal opinion is that the Association must be primarily devoted to study; and that the time in the meetings should be devoted largely to study; it should represent what the medical society does to doctors. A systematic course of study ought to be carried on in all Alumnae Associations.

Each Association should look after its own sick and unfortunate. That should be a sort of a family matter; it can not be relegated to state associations or county societies.

We have existed as a profession in this country for about thirty or thirty-five years, and we are beginning to see some of the results of the work we have done. If I could throw upon a screen the procession of women who have gone this way or that, I should not need to talk to you about organization. The great trouble with us has been that having finished their training, the nurses have felt that was the end of it, and all they had to do was to go out and make a living. They have not kept in touch with the schools, hospitals or organizations; they have not been progressive students. The result is they go out and become known as good nurses, doctors are ready to employ them, and patients are pleased. But after a few years they find themselves out of touch with the profession on account of the improvement in methods, technique and new lines of treatment; and they soon fall behind. Those more recently out of hospitals take their places, and they become fretful, peevish and dissatisfied because their work is slipping away from them and they no longer occupy the

place in the ranks that they did. There is no good reason for a nurse being laid upon the shelf after six or eight years. Experience added to constant study and training should make her more valuable.

There are Many Avenues Now Open to Nurses

that years ago were never dreamed of. If the nurse finds the strain of private nursing or hospital work too great for her, there are many other things she may do, one of which is to become a visiting nurse. When visiting nursing began in this country, not more than twenty years ago, the sole object was to send nurses to look after the sick poor. But they found many things to do which did not come under nursing at all. Right standards of living had to be taught, mothers needed to be taught how to take care of their children, and how to make the most of their poverty-stricken establishments, so that visiting nurses have become teachers rather than nurses. Here is a large field open for those who are fitted for that class of work.

There is scarcely a training-school in this country that is not in need of teachers who are really good teachers. Hospital dietitians are also in great demand. The dietitians who take training in our universities and technical domestic science schools are not nurses, and it is difficult for one who is not a nurse to adjust her work to hospital conditions.

Then We Have Missionary Nursing

which has come to be a very important feature, and the demand for nurses to do missionary work has grown to be very great. Ordinarily most of us think of a missionary as a person going among the heathen teaching them matters of faith and religion. The nurses and doctors who go out to foreign lands in these days have not time to do much of that. Their work is to care for the sick and the dying, and thus to minister to soul and body. Medical missionary work is used as a civilizing influence, as an example to the heathen people in sympathy and compassion.

The Social Welfare work in our own country, which means going out and looking after the poor, and finding their standards of living, the matter of wages they receive and the number dependent on this wage, is giving a wonderful field of work to people who are fitted to do it.

Such people as Jane Addams of Chicago and Prof. Edward T. Devine, head of the School of Philanthropy in New York, say if the nurse is the right kind of a woman and has had the right training, and then takes training as a social worker, no other can do the work so well as she. This is perhaps the widest and greatest field open to us, and very few nurses are equal to it.

How Can Training of That Kind be Obtained?

and how can nurses who have limited means take training as dietitians, as social workers, as teachers of nursing or prepare for missionaries in connection with the churches? There are two school of philanthropy, one in New York and one in Chicago; and the Columbia University has a course for visiting nurses. For those who wish to prepare to teach nursing, there is a course in Hospital Economics in Columbia University, which is to nurses what normal schools are to teachers.

That course has grown out of our nurses' organization.

How are young women to take these courses, being mostly women of limited means? Other professions have endowed chairs, and bestow scholarships to make it possible for students to fit themselves for higher things. If we had money we could make it possible for promising nurses to take up these different lines of work. But although our means are limited this does not mean we can not have a scholarship fund. In a few years by each one contributing her mite, we can have such a fund, which will be open to graduates of every hospital and training school.

It was the dearest wish of Mrs. Robb, our great American nurse who died about a year ago, that we should have a scholarship fund for nurses so that they might finish out their education and become the most useful women possible. At the meeting of our two great societies in New York last spring we decided that the most fitting memorial we could have for Mrs. Robb would be the establishment of such an endowment fund, so we are appealing to every nurse in this country to contribute to that endowment fund, that we may furnish the means to the rising generation of nurses to qualify themselves for such scholarships and to do this greater work that is lying at our hands to do.

When the Spanish-American War Broke Out

in 1898 we had no nurses' organization. When the government called for nurses for the sick soldiers, a large number of splendid women from our good schools responded, and there was a body of women not so large but very conspicuous, who also responded. These were women who had never qualified for nursing in any reputable school. The nurse's profession is one which lends itself readily to masquerading. The public has no way of protecting itself against imposters who call themselves nurses and wear a nurse's uniform. Such people are always on hand in time of public excitement and particularly in times of war; and they came forward at the time of the Spanish war and behaved as you would expect them to, and the good nurses who responded, came back humiliated and heart-broken because they carried the load of scandal made by those women.

There are training schools, so-called, which do not train nurses in the technique of nursing, but simply keep them to do their work and a vast army of that type of women is turned out every year. One-third of the training schools in the United States should be put out of business. State registration protects us against these people. The public should be protected against this class of women I am speaking of, and we are the ones to do it. If every good nurse were registered, it would not be long until the public, the medical profession and every one concerned would know that a registered nurse means a good nurse and a good woman. We must make these two things go together.

To prevent a recurrence of the performance during the Spanish War we are making a new enrollment of the Red Cross Society. We wish to have enrolled in this country between 5,000 and 10,000 nurses, so that in times of public calamity we can have as

many as we need without taking nurses away from their sick patients and out of the hospitals where they are needed. We wish to have enough in each state so that in case of a public calamity of any kind, enough nurses could be found at once to meet the emergency. In case of calamity only nurses who belong to the Red Cross would be allowed to go. In every state and city there is a local chairman who will supply application blanks to nurses who wish to enroll in the Red Cross Association.

If we are to be nurses we can not afford to be out of touch with what others are doing.

You can not be a nurse and do your best work if you are rusty and behind the times; the best means you possibly can have for avoiding this is by keeping together. That we have such splendid organizations, and now that we have state registration in thirty-nine states, and such splendid schools and hospitals, and such opportunities are open to the nurses, is all because a number of women have worked. You have the benefit of these advantages to-day, because those before you did their work and did it for you. What are you going to do for the nurses coming after you?—that is the question.

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CURATIVE AGENCIES

(Continued from page one)

specialties or "cure-alls" or nostrums. It has no mineral springs, nor does it employ any bad-smelling or bad-tasting waters, but chooses for its use the simplest and purest water it can obtain. Drugs and artificial measures are not resorted to except temporarily in extreme cases where the patient has long been accustomed to such measures and is not able to drop them abruptly. The Sanitarium cherishes no mysteries and conceals none of its methods. On the contrary, it

seeks by every possible means within its power to make known to all the world the nature of the work it is doing in every detail; and those who visit the institution either as guests or as patients are at the fullest

Liberty to Make Themselves Acquainted

with the operations of any and every department of the institution, of every method employed, and the reason therefor. There are no dark corners in the place, and no places from which the interested student is excluded. The doctors and other employees are each one of them ready and more than willing to impart any knowledge they possess in regard

to Sanitarium methods and principles.

The patient is taken into the confidence of his physician and is made an active partner in the business of getting well. The whole procedure is explained to him and each step that he is required to take is made plain both in its reason and its expected results. The Sanitarium works conscientiously to relieve sickness, and realizes that much more can be done to relieve humanity through education by impressing people with the knowledge of right ways of living, how to preserve their health, and how to restore it when lost, than in any other way. The methods and appliances of the institution are not guarded by any patents, the whole establishment and procedure from alpha to omega are open and plain to the investigator, whoever he may be.

What Then, are the Main Dependencies

in effecting cures? In reply to this question we would answer that they are certain great fundamental principles which control the life and health of the individual and in the observance of which we find both the prevention and the cure of disease. These principles do not apply exclusively to any particular performance or measures. They may be applied in various ways, but always through natural agencies. It is claimed and taught here that the body has within itself the power to maintain its healthy activities and to recover those activities when once they are lost, provided the hindering causes are removed. So that all that devolves upon the physician is simply to remove the causes which have brought disease, remove the obstructions to natural vital activities that disease has erected, to provide natural and suitable nourishment for the system, and where it is necessary, in a natural way, that stimulus to healthy activity which a debilitated state of the body may require and suggest.

The Means Employed

to accomplish this work, then, are simply those provided by nature itself for that very purpose, and they consist mainly in simple, healthful life-giving food,—food which does not obstruct the vital processes, but which supplies in its purest form the necessary elements of nutrition in which the right proportions of the different food elements are found. This matter has been by many years of careful study reduced to an exact science and is carried on in the Sanitarium under the direct supervision of physicians and dietitians of skill and experience.

Study and experience have taught the Sanitarium physicians that the exclusion of meat, of rich and unwholesome foods, and stimulating drinks is a necessary step in the proper nourishment of the body.

Another means employed is the use of an abundance of fresh and pure air for breathing purposes. To secure this, the patients are taught to sleep with windows open, in many cases to sleep in the open air, and during the day to spend as much time as possible in the free open air of out of doors. Simple, pure water is advised for both external and internal uses. The clothing is regulated to protect and nourish the body, and another means largely depended upon is the proper adjustment of exercise and rest. Good sound sleep and plenty of it is encouraged by every



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We will allow a cash discount of 5 per cent (thereby making the price \$4.55 per pair) if you send **FULL CASH WITH ORDER** and enclose this advertisement. You run no risk in sending us an order as the tires may be returned at OUR expense if for any reason they are not satisfactory on examination. We are perfectly reliable and money sent to us is as safe as in a bank. If you order a pair of these tires you will find that they will ride easier, run faster, wear better, last longer and look finer than any tire you have ever used or seen at any price. We know that you will be so well pleased that when you want a bicycle you will give us your order. We want you to send us a trial order at once, hence this remarkable tire offer.

IF YOU NEED TIRES don't buy any kind at any price until you send for a pair of Hedgehorn Puncture-Proof tires on approval and trial at the special introductory price quoted above; or write for our big Tire and Sundry Catalogue which describes and quotes all makes and kinds of tires at about half the usual prices.

DO NOT WAIT but write us a postal today. **DO NOT THINK OF BUYING** a bicycle or a pair of tires from anyone until you know the new and wonderful offers we are making. It only costs a postal to learn everything. Write it NOW.

J. L. MEAD CYCLE COMPANY, CHICAGO, ILL.

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 occur. The next class will be organized the first of April, 1911. For full information address

Sanitarium,

Battle Creek, Mich.

lawful means, and measures are taken to provide pleasant and profitable employment for the mind, both in entertainments and instruction in health lines.

As an adjunct by way of therapeutics, hydrotherapy administered in a multitude of forms is largely employed. Electricity, also one of the natural forces, is brought into requisition in a large variety of methods too numerous even to mention here, and the physicians of the Sanitarium are continually on the alert for new developments along the line of natural remedies and restoratives, ready to adopt anything that comes to them commended by good sense and in harmony with the great principles of life and health. This in brief is the medical genius of the Sanitarium.

ARRIVALS

THE list of arrivals at the Battle Creek Sanitarium for the week ending March 26 is as follows: Howard Hubbard, Miss Sallie Tevis, Mich.; W. B. Dye, Mich.; W. Geo. Laun, O.; C. A. Richards, City; W. I. Perkins, New York City; Wm. Burtless, Mich.; E. M. Norton, Mo.; Cordell Humphreys, Mo.; J. H. Struble, Mich.; Mrs. C. W. Crosby, Detroit; W. L. Stephens, Canada; C. L. Gilkam, La.; Joseph Jarka, Mich.; J. M. Fitzgerald and Miss Kate Fitzgerald, Ia.; H. M. Simmons, M. D., Baltimore; Mrs. W. W. Leonard, O.; Mrs. E. W. D. Halway, Minn.; Otto Reich, Detroit; A. T. Pryor and U. S. Duncan, Mich.; Geo. Mahon, Tenn.; Robt. L. Fox, Ind.; Mr. and

Mrs. W. Clifton Dodd; O.; L. A. Biggs, Tenn.; Miss Pauline Reibestein, O.; H. C. Pannill, W. Va.; E. M. Harber, Mo.; F. F. Wolfe, New York City; C. B. Horner, O.; L. L. Salveter and wife, Mo.; Dr. F. J. Otis, Ill.; J. Doster, Kans.; Thos Norton, Detroit; Mrs. E. E. Ronney, Cleveland; W. W. Swoyer, O.; D. W. Davis and wife, Mich.; W. H. Whitmarsh, Ark.; H. E. Carter, Detroit; H. M. Larrabee, Mich.; Geo. Maton, Tenn.; Mrs. G. O. Lowell, Ill.; G. W. Frask and wife, Ind.; Miss E. Ayers, Ill.; C. F. Moore, Mich.; J. W. Hutcheson, Ind.; M. Lucile and Bessie E. Ladd, Mich.; J. A. Gilroy, Detroit; Jessie W. Jeffrey, Mo.; Geo. A. Tietzen, Minneapolis; W. T. Perkins, New York City; Mrs. T. W. Millikan, Ind.; Francis S. Hendry, Chicago; Azelia V. Webs, Minn.; Ed. Fanning, Mich.; Alex. McIntosh, Ill.; J. M. Galbreath, Ia.; O. M. Husted, Helen Cottrell and Sarah Husted, Ark.; C. J. Fish, City; I. F. Tuckerson, Mo.; F. M. Barnhart, O.; Dr. C. S. Hitchcock, Toledo; R. E. Skell, Cleveland; Mr. and Mrs. Ben Rothschild, Ind.; Chas. C. Wilson and Jas. S. Mahon, Chicago; Harry E. Chase, Grand Rapids; L. Kearney, Mich.; J. H. Bentz, O.; T. A. Burt, Ill.; Roy T. Loush, Chicago; Lee Hart, Chicago; Mrs. Wm. Westernman, Conn.; J. W. Mulligan and wife, Ky.; Miss M. F. Hadrick, Mrs. Mary E. Courney, Mrs. A. E. Ferguson and Horace M. Oren, Mich.; W. J. Reid and wife, City; Mrs. S. M. Hart, New York City; A. S. Davis, Chicago; C. H. Benedict, Mich.; H. L. Waldo, New Mexico; Mrs. A. Folsom, Ia.; Mrs. R. E. Moore, Neb.; Mrs. F. J. Peck and Miss Gertrude Peck, Wis.; Earl E. Piper, Pa.; D. W. Place, Ind.; Mrs. J. B. Hawson,

N. Y.; E. B. Pierce, M. D., Mich.; H. J. Bardwell, Chicago; Mrs. Paul Jones, New York City; J. H. McLane, Chicago; Charles S. Cook, O.; Mrs. J. C. Field and C. E. Noyes, Mich.; Jas. I. Workman, S. Dak.; Mrs. C. H. Murphy and Mrs. C. H. Benedict, Mich.; Jean A. Vernier, M. D., Calif.; Mrs. Samuel Schlosser, Ind.; Geo. Mahon, Tenn.; M. J. Cox and wife, Birmingham; C. H. Stutteback, Chicago; W. N. Cox, Ala.; M. A. Singer, New York City; G. A. Stadler, Ill.; F. Keiper, N. Y.; Mrs. E. M. M. Johnson and L. A. Weidner, Pa.; H. J. Bardwell, Chicago; A. A. Frankie, Ill.; L. Olson, Los Angeles; Austin W. Warr, Mont.; E. C. Hickman, S. Dak.; Mrs. F. K. Harris, Pa.; C. W. Birzelle, Ill.; Mrs. Harriet E. Evans and Gurney C. Wright, O.; Geo. Mahon, Tenn.; Mrs. Mary Banfield and child, Ind.; Dr. A. L. Shelton and wife, China; C. E. McDonald, Tex.; Lee Hart and J. H. Cottell, Chicago; C. F. Chapin, Idaho; Mr. and Mrs. L. S. Gaurer, Ind.; J. A. Decker, Wis.; M. E. Vickery, Fla.; A. A. Lewellyn, Pa.; Mr. and Mrs. Frank B. Hooper, Ia.; Mrs. Silas H. Wright, Mo.; Mrs. Marcus Lane, Grand Rapids; A. C. Johnson, Chicago; E. W. Moore, Cleveland; Mrs. E. Rodgers, Ind.; A. F. Sterrett, Ill.

News and Personals

Dr. B. D. Harrison of Detroit, Secretary of the State Board of Registration in Medicine, made a brief visit to the Sanitarium last week.

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 noon prayer meeting is held daily in the fifth-floor parlor at 12:30. On Sabbath the meeting was unusually large and interesting, and was led by Dr. Kellogg.

Mrs. A. E. Ferguson, of Sault Ste. Marie, Mich., daughter of Governor Osborn of Michigan, and her sister Miss Emily F. Osborn, are taking treatment in the Sanitarium.

Mr. A. H. Whitmarsh, who represents the Buchanan Yellow Pine Lumber Co. of Texas, spent several days at the Sanitarium with his wife who is taking treatment here.

Governor Chase S. Osborn, of Lansing, spent a few days in the city last week and with several leading men of the city was a guest at supper one evening at the Sanitarium.

Mrs. H. Coburn, of Indianapolis, arrived at the Sanitarium on the 28th inst. and was warmly greeted by many friends. This lady has visited the institution previously, and is highly esteemed.

Dr. Kellogg went to Lansing this week by special request of the Public Health Committee to speak before the legislative committee on a bill providing for a Certified Milk Commission. We shall be pleased to furnish next week an abstract of his address.

Dr. Rowland H. Harris and Dr. Elizabeth Kerr-Harris have gone on a vacation, the first part of which will be spent in New York. Dr. Clara V. Radabaugh succeeds Dr. Elizabeth Harris and Dr. Case takes the post of assistant surgeon.

Dr. Kellogg went to Indianapolis on the 30th, where he addressed the State Association of Teachers on the subject of Health and Hygiene. The gathering was a very large one, and Dr. Kellogg was accorded a very enthusiastic and earnest hearing.

Dr. Carolyn Geisel, who represents the Sanitarium principles upon the Chautauqua and other lecture platforms, is at present in the South, and has been invited to spend two weeks at Tuskegee, an invitation which she has accepted.

Two of the medical students, Mr. Simmons and Mr. W. Wooley, of Chicago, have been spending a few days at the Sanitarium. Their many friends were glad to welcome them and to hear their good reports of the progress of the students in Chicago.

Dr. Frank J. Otis and wife, Dr. Mabel Otis, have returned to the Sanitarium and will rejoin the Sanitarium staff. Dr. Frank Otis acting as receiving physician. The doctors have been accorded a warm welcome from their many friends in the Sanitarium.

Miss Lenna F. Cooper, dietitian and superintendent of the Domestic Science department, has gone to Ft. Wayne and Auburn, Ind., lecturing and demonstrating before the women's clubs on health and dietetics. Miss Leah Hubbard will substitute in the dietetic department.

Mrs. Ralph C. Norton, pianist accompanying the Chapman-Alexander evangelistic company, is a guest at the Sanitarium, resting while the large party are on a temporary trip to Swansea in Wales. Mrs. Norton was with us three years ago, afterwards accompanied the party to Australia and around the world.

The Southland Nightingales, jubilee singers, gave a very enjoyable rendering of negro songs and readings in the parlor on a recent afternoon. There was a large and appreciative audience. Miss White, who is the musical director of the band, is an accomplished pianist and singer. She has been blind from early infancy, but by her talent has been able to bring much cheer into many lives.

The Christian Endeavor meeting was held on Friday evening and was led by Dr. E. L. Eggleston, the subject being, "Joshua." Dr. Eggleston spoke of Joshua's apprenticeship for his work, of his faithfulness in its execution. He spoke of him as a warrior, judge, and leader, and emphasized his strong principles of character, saying he was a man of strong convictions. Miss Babcock rendered a violin solo.

The monthly meeting of the Nurses' Alumnae Association of Battle Creek was held on Tuesday evening, the program consisting of a short business session and an informal discussion of matters pertaining to the profession. We give this week a *resumé* of a lecture given to the Association by Miss McIsaacs in the Sanitarium chapel. This lady was for years superintendent of the Cook County (Chicago) Nurses' Training-school and is now Inter-state Secretary for the National Nurses' Association.

On Sabbath morning, Rev. A. W. MacLean, D. D., of Cincinnati, preached in the chapel, his subject being "The Saviour of the World." In the afternoon in the Sanitarium parlor Dr. W. C. Dodd spoke to a large and deeply interested audience, upon his work and travels in Siam, and of the peculiar characteristics of the Laos people. Dr. Dodd recently made a long journey of 1,000 miles through a mountainous region of Siam and traveled for many weeks through a country where not one of the inhabitants had heard the story of Jesus.

The Mission Study class met as usual on Sabbath afternoon in the fifth floor parlor. The class was led by Miss Parker and the subject was, "The Recent Revival in Korea." It was a very interesting session, during which the subject for the next study was discussed. A unanimous vote was taken to study the "Uplift of China" by Dr. Arthur H. Smith. The leader of this study will be Mr. Gordon Adams, who was born in China, and whose father and brother are well known missionaries in that land. He will be assisted by Miss Eck of the nurses' department.

The Gymnasium Exhibition by the students of the Normal School of Physical Education was held on Saturday evening, March 25. It was the best and last of the season, and the

audience was large and enthusiastic. The events were as follows: Marching Tactics by Seniors and Juniors, which were followed by Dumb Bell Drill by the same class, and apparatus work in which both men and women took part. Among the athletic sports there was a contest between the patients and the students which was closely contested, and although the patients won only one game out of three, they have shown themselves very able competitors with the students who are making a specialty of the training for physical directorship.

The Sanitarium greenhouses are well stocked with flowers and fresh vegetables, and all through the winter have furnished health, comfort, and pleasure to the guests, both at the tables and in the public and private rooms. We present in this number a view of one of the greenhouses in which lettuce is grown, also a picture of chrysanthemums at Christmas. Fresh strawberries were exhibited by the gardener this week. Tomatoes, radishes, beans, and other green products are furnished for the tables, and constitute a very welcome addition to winter's dietary. The flowers furnished are in great numbers and beautiful variety. These greenhouses are under the efficient charge of Mr. Charles Vandervoort.

Among the recent arrivals, whose names appear in the list published in another column, we note the following: Rev. and Mrs. W. Clifton Dodds, missionaries from Siam; Dr. A. W. McLean, secretary for foreign missions for the Christian church, whose headquarters are in Cincinnati, and who has visited us before on various occasions; Mr. C. E. McDonald, auditor of the Great Northern Railway; our old friend C. P. Moore of St. Clair, Mich., one of the proprietors of the Diamond Crystal Salt Company, whose salt is all salt. Mr. and Mrs. Shelton, missionaries from Thibet, were here for a few days. Many other guests are also worthy of special mention, for looking over our very large family, larger than ever before at this time of year, one can not but be impressed by the sight of so many noble specimens of manhood and womanhood as we have under our roof.

With a bright, cheerful fire, and well lighted parlor, a large audience of Sanitarium guests gathered to enjoy the Informal Social Hour on Monday, which was made possible by the spirit of goodwill and cheerful acquiescence of several of our guests.

The first number was a fine violin solo by Miss Farquharson, the piano accompaniment being played by her mother. Then followed an "auto" reading given by Dr. Graham Lee, which provoked much laughter. Mrs. A. H. Smith told an amusing story of Dr. Spankster, which was followed by a banjo selection from Miss Doremus. Mr. Schatke then gave an excellent reading which greatly pleased his audience. Mr. Fred Butler followed with a vocal selection which delighted the audience so much that the encore was a foregone conclusion and was repeated also a second time, to which Mr. Butler responded with exceptional good nature. The pleasant hour closed with a beautiful piano selection from McDowell played by Miss Skeel.

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Natural Remedies

For the Treatment of Disease—How Vital Force is Conserved by Rest and Exercise
—From a Lecture by Dr. W. H. Riley

THE treatment of disease by natural remedies is a very large subject. I do not expect
(Continued on page three)

TAKEN FROM THE QUESTION BOX

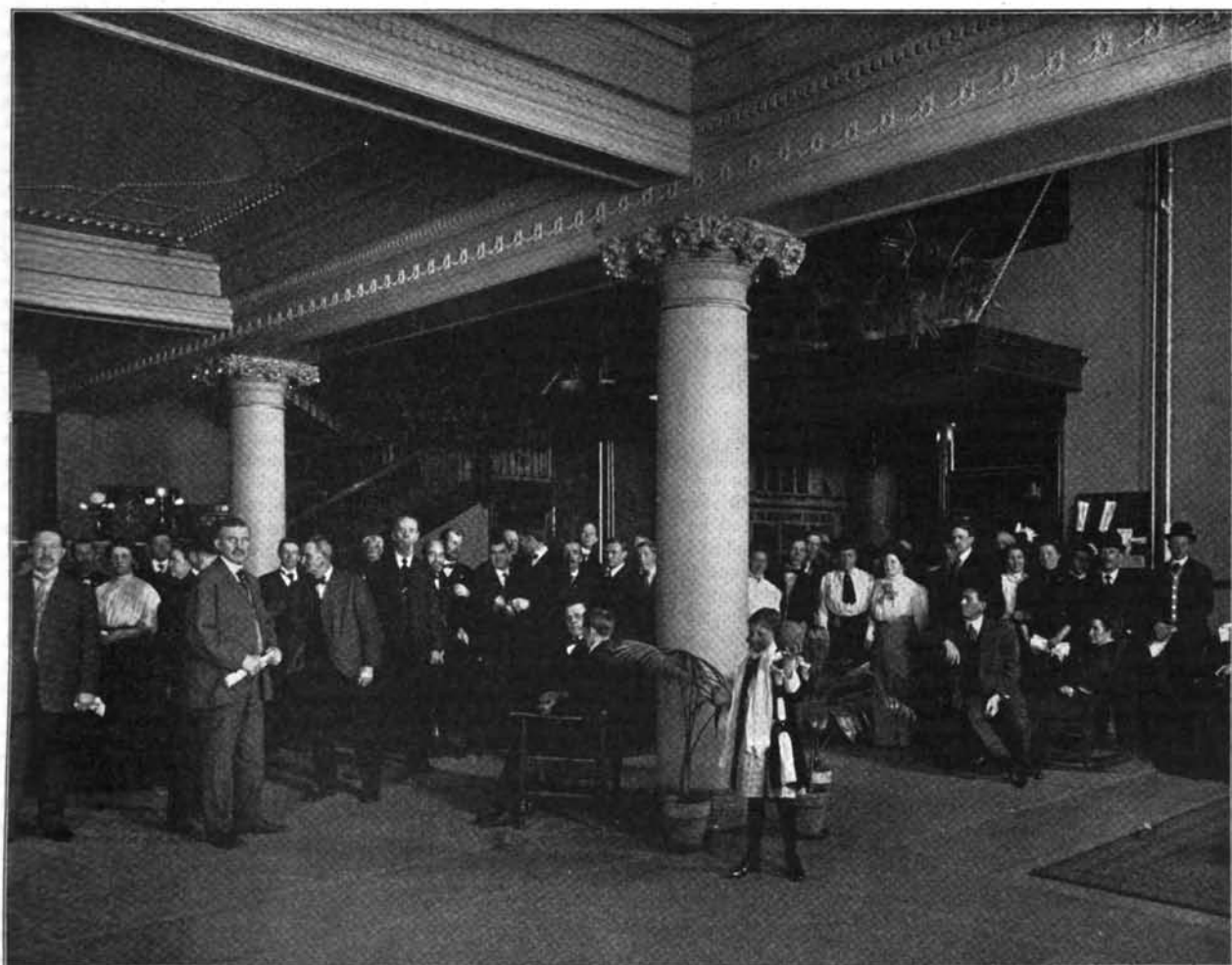
Sundry Queries Propounded by Patients, with Ready Responses by the Sanitarium Superintendent

Q. What is the cause of eructation of gas from the stomach?
(Continued on page four)

How to Gauge One's Vitality

Dr. J. H. Kellogg Replies to Questions, Giving Points which Indicate Low Vital Resistance

How do you register a person's vitality? What does low vitality indicate? and, What is the remedy? These questions are often asked.



IN THE LOBBY AFTER GYMNASIUM EXERCISES

We have no instrument by which we can test a man's vitality. Such an instrument would certainly be a great convenience. But there are several very important indications relative to vitality. I received a letter from the superintendent of a large boys' school in Pennsylvania recently, asking me to give some tests that could be applied to his students to ascertain how their vitality stood. And I gave him a few.

One was the coated tongue. If a man has a coated tongue, it is an indication of low vitality; because there are germs growing on his tongue. The first time I mentioned that idea, a look of incredulity went over the faces of everybody present. That was more than forty years ago. To demonstrate the statement I arranged some potato cultures, and whenever a patient came in with a coated tongue, I would scrape off a little of that coat and put it on the fresh cut surface of the potato. In two days there would be a coat on that potato just like the coat on the patient's tongue, and it would smell just as bad and sometimes worse. It had the same flavor his bad breath had.

A Coated Tongue

is one indication of low vitality. Under ordinary conditions the tongue is clean, because the saliva keeps it clean. The blood contains substances known as alexins, elements which have the power to prevent the growth of germs; and these alexins are in solution, and are poured out into the mouth with the saliva; so while they do not prevent germs being present in the mouth all the time (for we take them in from the air), they prevent their growth and development. But when a person's vitality is lowered, then these alexins are not present, and the saliva no longer inhibits the growth of germs, and they develop and the tongue becomes completely coated.

And that is the reason why people have a coated tongue in fever, because in fever the vitality is lowered. If the resistance were not lowered, no one would have fever. When one overeats and has a bilious attack, his body is flooded with poisons, and there is lowered resistance and a coated tongue.

Another evidence of lowered resistance is the presence of

Pimples on the Skin,

a scurfy skin, a skin in which there is an eczematous eruption; this is an evidence of lowered vital resistance, because a healthy skin keeps itself well. Here is an apple tree. If it is well nourished, properly pruned and taken care of, that apple tree has a glistening bark, every leaf is glossy, and the limbs are all in perfect health. But let the tree get diseased; put too much manure about the tree so that it has too much protein, and it soon gets to be a sick tree from a high-protein diet the same as people do.

The horticulturists know all about that. Plenty of experiments are recorded in the *Experiment Station Record*, which is sent out by the government every month, that have been made with orchards to show that a high-protein diet for trees produces disease; the trees become sick, and you find mold and fungi of various sorts growing upon the tree because it has lost the power

to resist the encroachments of these tree germs.

The entire surface of the body is

Swarming with Germs.

If you were to scrape off a little of the scurf from your skin, give it to the bacteriologist, let him cultivate it, you would be amazed to see how many kinds of germs there were there. The skin is completely covered with death-dealing bacteria. If these bacteria get down under the skin and grow, they may produce poisons which are capable of causing death. That is why the surgeon used to have so much trouble. The thing that the surgeon is very anxious about is that there shall not be any germs left on the skin. In critical surgical cases the patient is completely covered with the exception of a small surface, and that is thoroughly washed and then painted over with tincture of iodine, to kill the germs on the skin. If we did not destroy the germs on the skin, and some of them got inside, they might easily destroy the patient's life.

That is what used to produce peritonitis and so much mischief after an operation. In former years the germs on the patient's skin and on the surgeon's fingers caused much mischief, producing peritonitis and other troubles. Now surgeons and surgical assistants put on long rubber gloves, so that there will not be any germs from their hands coming in contact with the patient's tissues. If these skin germs can be excluded the patient will be very likely to make a good recovery.

When there are pimples on the skin it is because the skin has lost its power to fight off the germs successfully; they have taken root and are getting down deeper into the tissues, and certain germs that are very virulent get to growing, and there is not only a pimple, but a boil.

Erysipelas Germs

are always present on the skin; and there are other germs much more virulent, and if our resistance is lowered, they may get hold of us at any moment and carry us off.

That is the unfortunate thing that happened to one of my friends. He came in contact with a patient who had very virulent germs, his resistance was low; because he had been losing a lot of sleep, working all night till three or four o'clock in the morning, and he had not the power to resist. Instead of his blood putting up a great fight as it ought to, and getting the leucocytes away up to 300 or 400 per cent, it made no effort at all to defend the body, so the germs grew and multiplied, got into his kidneys and blood-vessels, and carried him off. It was a dreadful tragedy to us, but the power of the body itself was not there to react and to make resistance. The thing we depend upon to keep us alive is the resistance of our bodies, our ability to fight. The physical body is in just the same situation as the body politic; it must have power of resistance to keep off its enemies.

Another indication of low resistance is

Decay of the Teeth.

If you find your teeth are decaying too rapidly, that is an indication of low resistance, and you should find out what is the matter and correct it, because it is not only the

teeth that have this low resistance, but your blood has low resistance. It is the blood that heals; it is the blood that builds. If you would like to see this illustrated, watch the healing of a cut. The blood forms a clot in there, and if you examine that clot through a microscope, you will find a perfect network of little strings of fibers, like the wire used in the building of a bridge, running from one side to the other of the cut. Pretty soon you will see creeping out on those threads some white blood cells; and they fill the space and begin to build tissue, and pretty soon they build blood-vessels, and by and by they build nerves, until that place is all filled in with tissue.

This process of creating and healing and building as carried on by the blood is a most wonderful process. Low resistance, then, means that the blood is depreciated and has lost its power to build and restore. So it is important to keep the blood up. How are you to do it? Keep poisons from entering the blood.

Tobacco Lowers Vital Resistance.

That is shown by the opsonic index test. Doctor Wright, of London, originated the idea of an opsonic index. He takes out of the body some blood, separates the white cells from the red cells, puts some tubercular or other germs with them, places them in an incubator at the temperature of the body, watches them for fifteen minutes; then takes them out and ascertains how many disease germs each of those white cells has captured; and in that way he establishes a coefficient of the opsonic index. It indicates how much resistance a man has against disease.

Doctor Wright tested a man who smoked, and found that man's opsonic index was zero. He had absolutely no resistance at all. The man was suffering from tuberculosis, and he kept on smoking, and in three weeks was dead. At the Phipps Institute, in Philadelphia, the records show that smokers are more than twice as liable to tuberculosis as people who do not smoke. The old idea that smoking is a disinfecting process is entirely a mistake.

Some time ago the theory was given out that one must eat meat in order to have high resistance against tuberculosis. That idea came from an old notion that dogs and other carnivorous animals were not subject to tuberculosis. In New York a man has been investigating this lately, and he finds that one-third of all the cats in New York City have tuberculosis, and the dogs are just as badly off.

At one time they said goat's milk would cure tuberculosis, because goats do not have tuberculosis. The reason why goats do not have tuberculosis is not because they are not subject to it, but because they live outdoors. They are a hardy animal, and neglected, are not kept shut up in stalls; but when you put them indoors and subject them to the same treatment as you do the cow, they get tuberculosis.

Now that the bright spring sun is bringing new life out-of-doors, the daily "Sunshine hour" in the parlor is more than ever attended with life and vivacity under the direction of Doctors Read and Otis.

NATURAL REMEDIES

(Continued from page one)

to exhaust it to-night, but it may be profitable for us to spend a little time studying two of the remedies that are used here in the Sanitarium in the treatment of disease.

The human family has for centuries been educated to have faith in drugs. And when sickness comes, the thing that is thought of is medicine, and usually the more bitter the medicine and the worse it tastes, the greater the faith one has in it. I do not wish in any way to discredit the proper value of drugs. Drugs have their place in the healing art, but their place is not so large a one as is usually supposed, and there are a great many other remedies that are more useful.

Our Bodies Are Made up of Cells,

and every human individual begins his life as a single cell. In the center of the cell is the nucleus, and this nucleus is the center of life. When this nucleus is destroyed, the cell dies. A part of the cell may be destroyed, but if the center of the cell is still retained, the cell will live and grow, and will repair itself and continue to perform its function. This cell has in it all the possibilities of the life of the individual, both physical and mental. If this original cell is made up of good material, then there will develop from it a healthy child, and finally a healthy man or woman. On the other hand, if the vitality and life of the cell is low and it has not much vigor, then the child or the individual that develops from this cell will likely be sickly, he may develop some defect, some form of disease. We begin our lives with this single cell, and all the qualities that we may show in any way in future life are handed down from this single cell. Of course this is subject to development and growth, and yet everything that we have in life pertaining to life depends to a large extent upon the quality of this cell that we all begin our lives with.

As growth goes on, the cells separate themselves into groups. One group will develop nerve cells; another group develops a liver, and still others develop muscles; and thus the various organs and tissues are produced. And so we find in the growth of the body that there is a division of labor. It has been estimated that in the system of a man there are eight thousand million cells. In a small drop of blood there are five millions of blood cells. I speak of this to emphasize the fact that although these cells are very small, yet they are capable of undergoing changes, susceptible to degeneration, capable of growth and development.

The work of the brain is the aggregate work done by all the cells of the brain. The work of the liver is the work done by all the cells of the liver. And it is so with every organ in the body. If each of these individual cells does its work, we shall be healthy and vigorous, we shall have strong and healthy bodies. When the Creator made man in the beginning

He Gave Him One Hundred Per Cent

of health and vigor, strength and vitality, and that was implanted in every single cell in the body. But that vital force has gradu-

ally leaked out of the human family, has gradually escaped and been lost because of the violation of the laws of life. And at the present time we do not find anybody who is perfectly healthy. I do not think I ever examined a perfectly healthy man in my life.

That may seem like an extravagant statement, because there are some people who consider themselves quite healthy and strong; and yet when we come to analyze them carefully there are at most very few perfectly healthy people in the world. Instead of having 100 per cent of vital force, some men will have fifty per cent, some only forty, some may have but twenty per cent, and occasionally we find some who have even less than that. We have no way of measuring just how much vitality a man has. We examine a man carefully, and by our different methods of examination the physician takes a



BANANAS GROWING IN THE PALM GARDEN

sort of an inventory of the system and the various troubles so as to get information that may aid him to correct them.

The thing that keeps us healthy and active is this vigor and strength and vitality that is in our bodies, and the thing that makes us well when we are sick is this same thing. A sick man gets well, if he does get well at all, because of these forces operating in his body. As I stated before, the human family has been educated to think that by swallowing some drugs they can get rid of their troubles. The only way in the world a man gets well is through the vital forces within his body.

There is No Disease but Can be Cured,

if one has enough of that vigor to overcome the disease. To illustrate: Suppose a man has cancer. This is often considered an incurable disease. Cancer saps the vitality out of a man, and lowers his vitality. And yet,

if that man has enough strength and vigor back of him, he can fight the inroads of cancer to recovery. The same is true with tuberculosis. But of course the people who develop tuberculosis are generally those who have little strength and low vital resistance. Not long ago I examined a young lady suffering with pulmonary tuberculosis, and she had only had it a short time, yet her blood was away down to thirty per cent of hemoglobin. Upon careful inquiry, I found that six other members of the family had tuberculosis.

In 1882 Doctor Koch discovered the germ that causes tuberculosis. But we have since found that the germ is not alone responsible for the disease, and that the real reason people have tuberculosis is because their vitality is low and conditions are favorable for the growth of the germ. Tubercular germs will not grow in perfectly healthy tissue. You never see moss growing on the sunny side of a tree, because conditions are not favorable there. Moss will not grow where the sun shines. And if one keeps his tissues healthy, they are thus protected against tuberculosis.

This vigor and health is what

We Must Preserve and Conserve

and develop and maintain in every way possible, for when that declines, disease comes in. Nature is working for us all the time. The natural tendency is toward health, not toward disease. Disease comes in because something interferes with the normal processes of nature. And the only thing in the world that sick people can do to get well is to take the obstructions out of the way and give nature a chance.

What are the obstructions? Germs are obstructions—typhoid fever germs and other germs. Poisons in the system are obstructions to health. Eliminate the poisons and nature effects the cure. If a man who has a broken leg will bring the severed bones together and give nature a chance, nature will do the healing, and that is the only way in the world it can be brought about. The doctor can not cure. It is nature that cures.

There are two lines along which the doctor may operate. At this moment I do not think of anything else that the doctor can do except along these two lines. One is to get the obstruction out of the way so nature can operate; and the other thing is to encourage or bring into greater activity, or stimulate these forces. Of course, if one has been accustomed to wrong living for years, the vital force is thus lowered and he can not expect a cure in a day. The matter of getting well is a matter of growth. The healing process is very much like growing a good crop of corn or wheat. Make good conditions for growing corn and you will get corn. And if you make conditions right for growing health, you will grow health. And the great work of this institution is to locate and point out the conditions that are favorable for the healthful development of the human body.

Along with these thoughts I want to consider

Some of the Remedies

which we might call "natural remedies." That term is perhaps the best I can use. The first thing we will consider is rest. I am

(Continued on page five)

The Battle Creek Idea

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A GREAT HEALTH EXPOSITION

THERE will be held in the city of Dresden, Saxony, from May to October, 1911, the first International Hygiene Exhibition ever attempted. This exhibition was projected as early as 1906 and has been in preparation since that time. It is under the special protection of the King of Saxony, and the Exposition will occupy a portion of the Royal Gardens. Very extensive preparations have been made for the housing of this exhibition. Palaces and buildings have been constructed after the manner of a world's fair. The exhibition is intended to cover every phase of human life in relation to its care of the body. The subject is divided into a large number of general groups which are again subdivided so as to comprehend every feature of domestic and public human life, both individual and collective.

The Battle Creek Sanitarium has forwarded to Dresden a fine exhibit consisting of various apparatus used in the treatment of the sick, and a large number of photographs specially prepared to illustrate Sanitarium methods. Dr. J. H. Kellogg, superintendent of the Sanitarium, is one of the American representatives on the directorate of the Exhibition and member of one of the important executive committees. There is every reason to believe that this exhibition will give a great impetus to the cause of hygienic and sanitary reform, that it will result in great good in the forwarding of the most recent and scientific improvements and discoveries in the whole realm of health.

SOUND SENSE

THE following appeared in a recent Chicago paper:

"Don't make a junkshop of your stomach," is the warning of the Chicago health department in the weekly bulletin issued yesterday.

The editor of the bulletin advocates a vegetarian diet, but for those who must have meat with their meals he points out a way to get around the high cost of the living problem.

"The cost of an article of food is no true guide as to its real nutritive value," he says. "For example, a glass of pure milk with bread and butter, an egg and a dish of fruit, costing all told 25 cents, is a much better

meal for the average person than a big sirloin steak which, with 'trimmings,' will cost five times as much."

"The trouble with many people is, they are willing to pay high prices for food that, while it tickles or pleases their palates, is of no more value than that costing much less.

"According to the *London Lancet*, there is very little difference between the nutritive value of wheat and rye. One distinct advantage of rye bread is that it keeps fresh longer than wheat bread. Rye bread also has distinct laxative properties.

"The effect of deep breathing as a mental stimulant is very pronounced. Two minutes' exercise of deep breathing will remove all feelings of sluggishness, provided, of course, that the exercise be taken in a room with the windows wide open, or, better still, in the open air.

"The mouth is the seat of many of the communicable diseases. For this reason mouth sanitation is important. A clean mouth and sound teeth are big factors in promoting physical health. Oral hygiene, as it is called, is becoming an important and recognized branch of medical school inspection. It is well understood that proper care and attention given to the mouth means that the child will be healthier, better able to assimilate its food, make better progress in its studies and be less liable to attack from the usual epidemic diseases of childhood."

FROM THE QUESTION BOX

(Continued from page one)

A. The cause is acid formed in the stomach in excess, and this causes the pylorus or lower opening of the stomach to shut up tightly. When the stomach contracts to force the contents out of the stomach, the pylorus being closed so they can not pass down, the gas passes up instead. That is the cause. It is not fermentation of the stomach; it is simply hyperacidity in most cases.

Q. Do not all parts of the body become stronger by exercise up to a certain point? and if so, is it not a reasonable supposition that the use of tobacco, within certain limits, by exercising the organs that have to do with excreting poisons, would make them stronger and so fortify the body against allied poisons of microbic origin so that one accustomed to tobacco might live, while one with equal chances in all other respects might succumb to some such poison?

A. That is the most ingenious argument for tobacco using I have ever heard. The answer to this is that the kidneys and the liver and other poison-destroying glands have all the work that can reasonably be required of them. They are not suffering from lack of exercise, and to ask these organs to take more exercise in order to gain strength would be like asking a laboring man who had been working hard all day to have some gymnastics to strengthen his muscles. Enough of even a good thing is quite enough, and there is such a thing as having too much of a good thing. The liver and kidneys are exercised by every meal. By every thought, by every movement of every muscle of our bodies poisons are produced. The body is a veritable factory of poisons, and the seden-

tary man has always an overworked liver, and overworked kidneys; because his sedentary life restrains his breathing to such a degree that he does not take in enough oxygen to burn up the poisons, so his liver and kidneys have already all the gymnastics and other athletics that are good for them in eliminating the natural body poisons, and they do not need any artificial poisons to wake them up.

Q. An old man seemed at the point of death. His friends were called to see him die. A daughter "with rare presence of mind" administered a teaspoonful of brandy. He revived and lived on some days. Did the brandy have anything to do with his reviving? or was it simply a coincidence?

A. Brandy did not have a thing to do with it. The statement is made that an old man seemed at the point of death. His friends were happily disappointed. He was not ready to die. They simply did not know the facts, or they would have known he had several days more to live, the brandy would not have been administered, and possibly he might have lived just a little bit longer than he did. Alcohol is not a stimulant. It does not revive people. An eminent English doctor says, "Alcohol does not put strength into a man; it takes strength out of him." These so-called stimulants are the worst sort of deceivers.

Suppose a tank full of water, with an outlet some distance above the bottom. When the water gets down to the level of the outlet the outflow stops. But suppose an outlet is made lower down, then more water will flow out. What alcohol does is to tap the tank lower down. It lets out a little more energy; but it does not add any energy. That is what strychnia and all the rest of these drugs do. They simply draw out a little of the reserve strength. They are deceivers, always. A man who has but a dime in his pocket, goes into a saloon, gets a drink of whiskey, then calls for whiskey to treat the whole crowd, and thinks he is the richest man in the world, when he has not a dime to his name. It fools him, makes him think he is rich when he is not rich. A man who is cold takes a glass of grog and feels warmer, but he is actually colder than he was before. A man who has taken a glass of grog imagines that he is very strong, and offers to fight the whole crowd. He is deceived. A man takes a glass of whiskey when he is sick, and he feels better, but he is not better. He has another poison added to those he had before.

Q. Is drunkenness apt to be hereditary?

A. No, not drunkenness, but the tendency to drunkenness. A weak nervous system, a feeble will, a neurasthenic tendency which calls for alcohol as a bracer,—these are common hereditary tendencies which lead to inebriety.

Q. How does the excessive use of tobacco affect the nervous system?

A. It besets everything in the body—every nerve, every tissue, and every fluid of the body. It is a general poison. It is a veritable demon of mischief.

Q. What is the best cure for eczema in a child?

A. Eczema is not really a skin disease; it is a general disease that is manifested in the skin. Nobody ever has eczema so long as his blood is all right. The old theory or notion which has existed among the laity the world over from ancient times, that skin eruptions are an indication of bad blood, is perfectly correct. It is only within recent times, however, that we have come to appreciate the fact that an eruption means bad blood, though there are a few exceptions. It is only when the blood becomes depreciated, when it is vitiated by the absorption of poisons from the intestines that the eruptions are tolerated. There are always present upon the skin germs that are capable of causing eczema. They are always there. The only reason why we do not have eczema is because our tissues are fighting these germs off and will not allow them to get a foothold. So if the resistance of the body is a little diminished, then the germs may grow.

Q. What is the cause of rheumatism?

A. Rheumatism is a dietetic disease. It is a malady that is cultivated at the dinner table. We eat rheumatism. If we did not eat it, we would not have it. Rheumatism is the result of autointoxication. It generally comes from the use of flesh foods, some portion of which, not being digested, is left to decay in the colon, and the poisons absorbed into the blood poison the entire body, and the first effect of this is to be found in the bones. If you find your finger joints getting enlarged, that is evidence the disease is beginning. It may attack the large joints next. Sometimes little spicules can be seen with the X-ray even before any symptoms have been discovered at all. That is the beginning of a process that by and by becomes hardening of the arteries and arteriosclerosis.

NATURAL REMEDIES

(Continued from page three)

sure there are more people made sick from the lack of exercise than by too much. Very many people do not take exercise enough. Yet there are some people who are made ill by too much exercise of one kind only. And this is illustrated in a number of different diseases, for instance, writer's cramp. A man has writer's cramp because he does an excessive amount of writing; he writes with his arm in a cramped position, and holds his pen rigid. A man who uses a free-arm movement never has writer's cramp, and since the days of typewriters we have much less of it than formerly.

Then, again, take the disease of nervous exhaustion, or so-called neurasthenia; for, though there are many things that cause nervous exhaustion, one of them is overwork, mental and physical. Usually there are other things that go with this to produce the trouble. And I might point out a great number of diseases that are caused by overwork. For all these troubles, rest is a remedy, a natural remedy.

The Best Form of Rest is Sleep.

When one is asleep, his brain is at rest, the cells are at rest, the work of his heart is re-

duced, his stomach is, or should be, at rest, nearly all the organs of the body are at rest. Sleep is a very important function of the body, of which I do not think we appreciate the value. Good, normal, healthful sleep is very conducive to health. And when one sleeps eight hours out of the twenty-four, he is pretty sure to keep in good health.

A very important thing that takes place in the body during sleep is a building up of the nutrition. We grow and gain in weight while sleeping. We never gain in weight while active. Exercise, of course, is important, and we will gain more in weight while

sleeping if we take proper exercise when awake, it is true, but we do not gain flesh while exercising.

Here is a Man Who Has Rheumatism.

Perhaps this rheumatism affects the heart and he has endocarditis; he overworks and gets run down and finally his heart fails and he has dropsy. There are many such cases that can be cured by just putting the man to bed. It helps him because his heart is having more work than it can do. And this is why he has dropsy. The heart is not able to pump the blood as it should do, and the blood leaks

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 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, \$40. Board \$3.00 to \$3.50 per week.

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WM. W. HASTINGS, DEAN, SANITARIUM, Battle Creek, Mich.

out into the tissues and his legs swell, his abdomen gets large, and he has difficult breathing. Simply take the work off the heart and give it a rest, and nature will right itself. Of course other measures are to be used along with that.

Here is another man who has locomotor ataxia. He has sharp pains in his legs and arms, especially before a storm. He has a nerve storm before the rain storm comes, and he can tell you very accurately just what is going to happen in the weather. His nerves have become hypersensitive by disease, and he notices these changes in the atmosphere that you and I would know nothing about.

One of the very best things for this man to do when he has a nerve storm coming on is to go to bed, and his pains will be very greatly lessened. These attacks usually last two, three, or four days, and he can often prevent an attack and avoid any pain at all by going to bed. The same rule applies, I think, to nearly all painful diseases. When a man has sciatic rheumatism, put him to bed. There are other things to be done, of course, but rest in bed is important.

A man who has fever should go to bed to conserve his forces so that he will have a better chance to fight the fever. The thing to do is to take care of the vital forces in

the body, to conserve them and not allow them to be dissipated and destroyed. A doctor with a typhoid fever patient under his care is very much like the faithful mariner taking care of his ship on a stormy sea. He can not stop the storm, but he can take good care of his vessel, and finally bring it into port all right. And so the physician can not stop the typhoid, but he can conserve the forces of his patient's body and take care of the patient and finally bring him into the harbor of health.

Exercise

Along with the subject of rest we naturally notice exercise. It is just the opposite of rest, of course. As I stated before, more people are made sick by too little exercise than by too much exercise. I would like to emphasize the statement that exercise does something to the body. Exercise increases the rate and the force of the heart beat. Exercise increases blood-pressure. Some may say their blood-pressure is high and therefore they ought not to exercise. That does not necessarily follow. Exercise increases the blood-pressure up to a certain limit; but the blood-pressure is not increased beyond the point of perspiration. And it is a very desirable thing to have the blood-pressure increased in many cases. We hear a great deal these days about high blood-pressure; and yet it is not a bad thing. The bad thing is the cause of it, which we do not see, the hardening of the arteries, the disease of the kidneys, or something like that. The blood-pressure is high because nature is still making an effort to help us.

More than that, exercise will force the blood out of the internal organs into the outside of the body. There are many people whose stomachs are prolapsed and have sunken down upon the abdominal region. In such cases the blood settles there just like water in a pool; it can not get out. It is a bad condition of things. The only way to get these organs in place is to get the blood circulating, by taking exercise. The exercises we have in the gymnasium are all good forms of exercise to get the blood going.

Exercise Increases Respiration.

You all know when you get out of doors and exercise you take in more oxygen, you breathe deeper, and your chest expands, and the lungs become inflated and you take in more air. Exercise increases oxidation. The fire in our bodies burns brighter when we exercise; more heat is produced. There are many suffering with cold hands and cold feet.

A CALL FOR STUDENT NURSES

THE BATTLE CREEK SANITARIUM AND HOSPITAL TRAINING SCHOOL FOR NURSES

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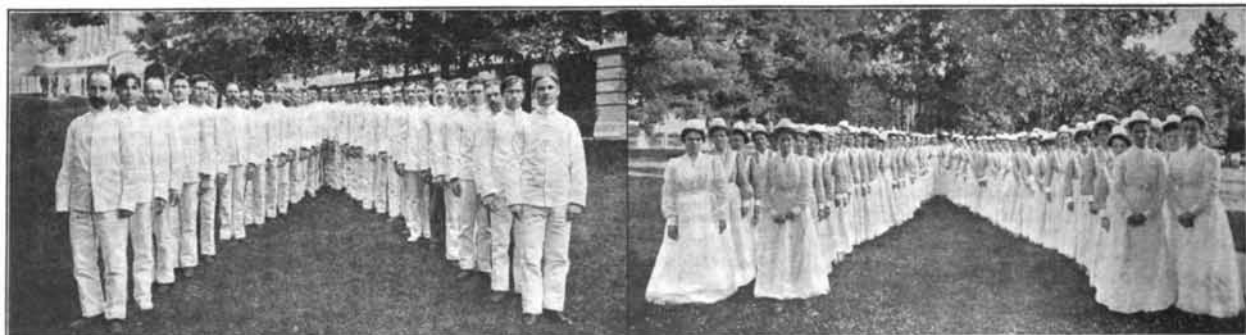
The demand for Nurses who are trained in the Sanitarium principles and methods is constantly increasing, either in the institution or outside. A good salary awaits those who finish the course.

In addition to the usual subjects taught in hospital training schools, special attention is given to all branches of physiologic therapeutics, including hydrotherapy, radiotherapy, electrotherapy, 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.

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SANITARIUM - - Battle Creek, Mich.



And that is because this function of producing heat is lowered and they can not make heat enough. Exercise will make more heat. When you take exercise, you make more heat in your body and your body is warmer.

Then, as a general thing, exercise increases the appetite and improves the digestion, and also relieves constipation. People that do work requiring active exercise do not usually have constipation; it is the individual who leads a sedentary life who is inactive. There is not a function of the body but may be increased by exercise. And yet, if a physician simply told his patient to go out and walk three miles and charged him five dollars for that advice, that would not set very well on the patient's mind; and yet the physician would be doing his patient more good than perhaps to give him some bitter medicines that would not help his case at all. Exercise is very valuable in a great many different diseases. A man with a weak heart needs a certain amount of exercise; his heart needs to be strengthened. If he has leaking valves, the muscles of his heart may need to be strengthened; and the only thing that will make the heart stronger is exercise. There is no drug that will make a man's heart stronger. You can not build up the heart by swallowing bitter drugs. They will stimulate the heart's action, of course, but they do not strengthen it. When a man is partially paralyzed, we put him through a course of exercise in the gymnasium. Of course we do other things, but this is one of the most beneficial things we can do, for exercise benefits a man's nerves as well as other parts of his body.

Burn up the Excessive Fat

The only way in the world to get rid of excess of fat is to burn it up. If the man who has too much fat will take exercise and not eat too much, he will reduce himself, because when he is taking exercise he is giving off energy, and that energy must come from somewhere, and since he is reducing his food he will consume his surplus fat.

Many people think that diabetes is a disease of the kidneys. That is not true. Diabetes is a disease of nutrition. Of course the sugar and the poisons that are formed in the body in passing through the kidneys irritate them and produce a disease of the kidneys. That is true. But diabetes itself is not a disease of the kidneys. The man who has too much sugar in the urine will have to burn it up, and one of the best ways to do this is to take exercise, and when he does this the fire in the body burns brighter and with greater heat and the sugar is burned up. And one of the very best forms of exercise for a man with diabetes is the swimming pool. The water keeps the body cool and the exercise you get in swimming burns up the sugar, and I have seen cases where by this means the sugar was reduced to nothing in a few weeks.

ARRIVALS

THE guests who registered at the Battle Creek Sanitarium during the week ending April 2 are as follows: Ella Martin, Ind.; A. E. Copping, Mich.; Henry N. Hess and Andrew C. M. Hess, W. Va.; Emily F. Osborn, Mich.; Henry F. Belcher, Chicago;

Wm. Burtless, I. N. Shepherd and wife, and Mrs. I. Robbins, Mich.; H. W. Clark, Ill.; F. A. Wood, Minn.; Mrs. J. F. Cummings, Cleveland; Yetta Lieberthal and Mrs. Sadie Lieberthal, Mich.; J. K. Arnold and Ida Karg, O.; Betsey Husted, Mich.; Geo. Mahon, Tenn.; S. G. Hutton, Chicago; A. C. Farrar and wife, Minn.; Jane Pryor, Mich.; D. H. Johnston, Wyo.; C. M. Feilbach, Toledo; H. M. Frame, Kalamazoo; H. N. Frular, Detroit; Mr. and Mrs. R. M. Hubbard, Mo.; Miss Mary Gikon, Ind.; Mrs. H. Coburn, Indianapolis; C. H. Burnett and Dr. J. C. Hick, Ill.; Anna Heerwagen, New York City; Dr. F. F. and E. B. Tucker, China; F. O. Clements and wife, O.; Mrs. C. F. Moore, Mich.; Villa M. Hoyt, Ont.; F. J. Price, City; Mrs. Ralph C. Norton, Chicago; W. J. Hazlewood, Mich.; Mrs. Jas. R. Hicks and Annie Nichols Yateman, O.; Mrs. H. M. Oren, Mich.; Annie Wilkins, Ill.; W. H. Wallace, Mich.; Samuel Kelarta, Chicago; Ernest Kellerstrauss and wife, Mo.; J. M. Reynolds, Wash.; John B. Parks and wife, and J. O. Parks, Mich.; Geo. J. Schoedinger and wife, O.; Mrs. Wm. D. Fox, Detroit; Chas. E. Marsha, Pittsburg; M. C. Mayor, Pa.; Mina Colburn Hiller, Cincinnati; H. Long, Chicago; D. L. Judson, N. C.; R. J. Bolster, City; R. J. Luston and wife, S. Dak.; Ed. Long, Ind.; Mrs. E. B. Gose and son, Kans.; Rev. Carl Critchett, Mich.; Chas. Loeber, Korea; Bertha Rogers, Mich.; Mrs. S. Diff, Chicago; Miss Bertha Anderson, Ill.; Mrs. L. Kearney, Mich.; L. A. Sisley and W. L. Sisley, Chicago; A. M. Walter and Cora V. Walter, Ill.; F. W. Walter, Ia.; O. G. Fox and wife, Ind.; W. P. Strong, O.; V. L. Crawford, Miss.; Nora D. Berg,

SCHOOL of DOMESTIC SCIENCE



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Battle Creek, Michigan.

Miss.; H. A. Spencer, Cuba; John W. Russell and wife, Texas; F. J. Eamon, Mo.; Mrs. Elizabeth Packard and Bertha M. Packard, Mich.; C. H. Morrell, Neb.; E. F. Foot, Denver; H. L. Chase, Grand Rapids; Miss Mary Moore and Mrs. C. B. Marks, Mich.; S. J. Schoer, O.; Flora E. Burloge, Detroit; E. M. Somers and Henry Somers, Ont.; Robt. O. Oren, Mich.; A. J. Beal, Cleveland; Philo C. Hildreth, Ia.; W. Reardon, Mich.; John S. Stowe and wife, Cincinnati; I. L. Matthews, Ont.; J. C. Gunter and wife, Denver; A. Moses, Canada; H. J. Fitzgerald, Ia.; W. J. Lutz, O.; Harry B. Baker, Mich.; Edwin W. Bishop, Grand Rapids; W. F. Dibrrell, Tenn.

News and Personals

A fine collection of Easter cards may be found at the bookstand and pharmacy booth in the lobby.

The spring term of the Normal School of Physical Education opened on April 5, enrolling several new students.

Mr. W. J. Hazelwood, son of Dr. Arthur Hazelwood, of Grand Rapids, is taking a course of treatment at the Sanitarium.

Mr. Ernest Kellerstrass, the noted poultry fancier, has returned to the Sanitarium, where he received a warm welcome from his many friends.

Among the recent arrivals at the Sanitarium are Atty. Geo. J. Schoedinger, of Columbus, Ohio; Mr. C. E. Marsh, of Pittsburgh, passenger agent for the Santa Fe Railroad; and Mr. R. M. Hubbard, grain commissioner of St. Louis, Mo.

Judge I. C. Gunther, of Denver, Colo., who has occupied every judicial position of prominence in the State, has just made a brief visit to the Sanitarium. He expressed himself as greatly pleased with what he saw and heard of the institution and its methods. The gymnasium work especially interested him.

Mrs. Ralph C. Norton was present at one of the regular morning services of the nurses held in the treatment rooms. She gave an excellent talk to the nurses, basing her remarks on the words, "Present your bodies a living sacrifice," and closed by singing very beautifully the well-known hymn, "I Surrender All."

Dr. F. F. Tucker and his wife, Dr. Emily B. Tucker, of North China, made a brief visit to the Sanitarium during the past week on their way to Lansing, where they were engaged in important meetings. The doctors are prominent in medical missionary circles and have accomplished great good in that portion of the Chinese Empire where their work has been bestowed. They expect soon to return to their field of labor.

The noon prayer meeting is held each day in the fifth-floor parlor. The attendance

keeps up well and good interest is manifested. Very frequently the meeting is led by Sanitarium guests. One of the last of these leaders was Mr. Hinckman, of Northwestern Theological Seminary, who is planning soon to take up missionary work under the Methodist Board in South America, where already some members of his family are working.

One of our missionary guests, Rev. D. S. Herriek, of the Congregational Board, who took a course of treatment in the Sanitarium last fall, writes encouragingly of his work in Madura, South India. A recent letter from his wife, who is remaining in America for the winter with their little daughter, says: "I am keeping in touch with Battle Creek doings through reading the Battle Creek IDEA. It comes to me first, and I send it on to him in India."

The Misses Metcalf have for some time been guests at the Sanitarium, and preparatory to their return to the Philippines gave an exhibition in the fifth-floor parlor. The exhibition consisted of fabrics and curios; gauzy stuffs for gowns; Moro cloths suitable for drapery for couches or table covers; a few bagaboh hemp cloths; garments and weapons for "den" adornment, and a variety of curios from remote corners of the earth. The specimens of embroidery on silk and fiber materials were especially beautiful, as were the very unique bead work and ornaments. The art baskets made by the wild mountain tribes attracted much attention.

Miss Lenna F. Cooper has returned from Auburn and Ft. Wayne, Ind., where she has been lecturing before the Woman's League on "The Relation of Foods to Health." The daily papers gave very enthusiastic reports of the lectures and characterized them as the best that had ever been heard in Auburn upon that subject. At Ft. Wayne the series of meetings were held to commemorate the Health Week. The topic assigned to Miss Cooper was "Malnutrition and Indigestion: How to Cure by Proper Diet, Exercise and Correct Living." In this town Miss Cooper found large and enthusiastic audiences, who listened with close attention to this all-important subject.

Prof. P. C. Hildreth, of Fairfield, Ia., formerly of Colorado and now connected with Parsons College, is taking a course of treatment at the Sanitarium. Also Mr. C. H. Morrill, who is engaged in banking and real estate business in Lincoln, Neb., and Mr. H. A. Spencer, who has been connected with a large sugar plantation in San Diego, Cal. Other arrivals are Mr. O. G. Fox, a retired business man from Lockport, Ind., whose wife was a former patient in the Sanitarium; Mr. V. S. Crawford, a manufacturer of Meridian, Mo.; Mr. W. L. Sisley, a hotel proprietor of Chicago; and Mr. Dan Hanley, of Houghton, Mich., who is connected with a large copper mine.

Among the recent missionary arrivals we notice Rev. Carl Critchett, of the Methodist Mission of Korea; Dr. and Mrs. W. C. Dodd and Mrs. Dunlap, of Siam. Dr. Arthur H.

Smith has returned from attending the meeting of the Woman's Jubilee Missionary gathering in New York City. He was present and spoke at the luncheon given the missionary authors and also delivered one of the principal addresses in Carnegie Hall at the great mass meeting. The Woman's Jubilee Missionary meetings have been held in most of the large cities from the Pacific to the Atlantic Coasts, and the meetings in New York closed the series which had been arranged to commemorate the founding of the first Woman's Union Missionary Society by Mrs. Doremus, a well-known woman of New York, whose granddaughter is now a guest at the Sanitarium.

The Social Hour on Wednesday drew a large number of people into the parlor, where a most enjoyable time was spent listening to some of the Sanitarium guests who cheerfully contributed to the brightness of the occasion. Miss Skeel gave the first number, which was a beautiful piano solo, and was followed by Miss Lily Busch, who gave a fine soprano solo with such telling effect that the audience insisted upon a recall, and even after that demanded a second encore, to which she graciously responded. Mr. Hastings kindly responded to the call for an impromptu story. Miss Doremus is a great favorite with the Sanitarium family, who much appreciate her beautiful music on the banjo; on this occasion she contributed several numbers which elicited enthusiastic applause. Mr. Schatlee, who has great dramatic ability, gave two fine readings, which were heartily appreciated, and frequent expressions of pleasure and gratitude were heard on all sides to those who had made sunshine indoors while a snow storm passed outside.

The Christian Endeavor meeting was held in the Sanitarium chapel on Friday evening. The meeting was led by Dr. W. F. Martin, the subject being "Painting the States White." It was a thoroughly good, earnest, rousing meeting. The first speaker was Dr. A. J. Read, whose subject was, "The Influence of the Saloon in the Community." He showed very ably the deleterious influences of drink in industrial circles in financial savings, making the striking statement that the increase of savings in Battle Creek during the dry period made an equivalent of \$332 to every man, woman and child. He showed conclusively that the saloon had a bad influence upon morality, and spoke of the saloon as being the annihilator of high ideals. The second speaker was Dr. Mabel Otis, whose subject was, "The Influence of the Saloon in the Home." She showed conclusively that the basis of the true home life is truth, honor and love, and that alcohol tampers with each of these virtues. The third speaker was Mr. A. W. Emmons, who spoke with considerable vigor and enthusiasm upon the duty of casting the vote at the polls. Mr. Fred Butler very ably rendered a beautiful solo called, "Open the Gates of the Temple," and by a few remarks preceding his song showed that he was thoroughly in sympathy with the subject of the evening. A fine temperance selection was rendered by Misses Apin and Gerow and Messrs. Merchant and Baldwin.

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Sleep and Insomnia

Dr. W. H. Riley Lectures in the Sanitarium Parlor on the Changes Produced by Sleep and the Causes of Insomnia

LET us notice the changes that occur in the body during sleep. The most important change is the loss of consciousness. If one is

A Practical Witness

Mr. A. W. Grabe, of Milwaukee, Tells Sanitarium Audience What Battle Creek Ideas Have Done for Him, and Replies to Sundry Questions

DOCTOR KELLOGG: Ladies and gentlemen, we are to have to-night a practical illustra-

WORK OUT THEIR OWN SALVATION

That is What Many of the Sanitarium Patients Have to Do—A Busy Day Filled with Pleasing Activities

It is a well-attested fact that people of sedentary habits, and those whose lives are largely confined within doors, are more lia-



A CLASS IN PHYSICAL CULTURE

at all conscious, he is not sleeping soundly. It is probable that all of the brain does not always go to sleep at the same time. We have this illustrated in what is known as
(Continued on page four)

tion of the value of hygienic living. This is a question box meeting, and I am going to ask some questions myself. When a workman can give you a sample of his work, it is
(Continued on page two)

ble to the various physical troubles and disabilities than are those who live and work in the open air and whose employment is of a more active nature. Man is naturally an outdoor creature and should, to be perfectly

natural, spend much of his time under the skies, breathing the purest air, and taking his exercise in the form of useful labor that calls into activity his various powers of body and mind.

But we find that the great mass of men and women are inclined to seek to confine themselves to offices and close rooms, superheated, and insufficiently ventilated, where the air is vitiated, and where at most but a small part of their muscular powers are called into action. Indeed, it is the aim of most people to get themselves into a situation where the least possible muscular activity will be called for, because hard work is looked upon as servile and degrading, and hence to live without work is the very highest ambition of the great masses that are crowding our cities and pushing toward the more effeminate modes of living.

If work must be done, the average man

Chooses to Let His Head Work

rather than his hands or feet. He is contented to grow gray and bald-headed leaning over a desk while his limbs and muscles shrink up and wane away into nothingness. Not only do his arms and legs suffer, but his back, his front, and his sides are weak and aching and flabby, and his insides are in no better shape. His stomach becomes weak, his digestive apparatus from first to last is inefficient, and every organ and function of the body is impaired because his whole body lacks the tone and vigor of healthy action.

Little wonder, then, that such people become ill, that their stomachs give out, their livers are overworked, their blood-pressure runs up, and they are altogether out of tune.

One of the first things that these misguided people must do when they really set to work to regain their health is to get down to good hard work as fast as they are able to bear it. So upon arriving at the Sanitarium the physician introduces them to the gymnasium; or, if they are too weak to perform manual labor alone, they are put into the hands of the masseur and manual Swedish operator, where their muscles are cultivated for them, and their muscular tone is raised by degrees until they are able and ready to enter the gymnasium on their own account, and at the same time they are more than likely invited to join the walking club for a stroll across country.

Gymnasium exercises come on in the morning in the form of breathing exercises before breakfast. These are intended to arouse the respiratory apparatus to full activity. At nine o'clock more general exercises are given for forty-five minutes, which include wand-drills, club and dumbbell exercises, and marching. The walking club starts out soon after dinner, and the gymnasium is opened in the afternoon, and in the evening after supper.

These Exercises Work Such a Revolution

in the hitherto stagnant and debilitated organs and functions of the body, and the effect is so exhilarating and so pleasant, that these things instead of being hard tasks imposed upon the individual, become delightful pastimes. We constantly hear patients boasting of their attainments in walking and running, in the games and athletics, and next to the dining-tables they become the prin-

cipal attractions of the place for many of the guests.

The exercises in the gymnasium are under the charge of those who understand their work from the scientific side. They are not hit or miss movements and unreasonable exertions which debilitate the body, but are so wisely and systematically applied as to serve as corrective and therapeutic measures, and to develop good substantial muscular strength, which is certainly a very important consideration in vital economy.

Such treatments are not evanescent and temporary in their effects; they enter at once into the very system as part of it, and their good effects remain and may be perpetuated and increased by proper care.

A PRACTICAL WITNESS

(Continued from page one)

the very best evidence you can get. And I feel very proud that I have a good sample to present to you, a product of what the



MR. A. W. GRABE

Battle Creek Sanitarium can do for people who are pretty well broken down.

About eleven years ago a gentleman came here and in giving his history stated that he had been

An Athlete and a Professional Baseball Player

for many years. He had left the baseball fraternity and become an electrical and steam engineer, and was mechanical superintendent of the large Plankinton estate in the city of Milwaukee, having charge of the great hotel, packing house and electric light establishment. He was thoroughly expert in all those branches. He had free access to the good living(?) which the packing house and the hotel with a fine chef could furnish; but it beat him, and he came to us. Some of you know just what the great hotels do for people.

When my friend arrived here eleven years

ago he was an unhappy man. He was very depressed and melancholy, had an awfully bad tongue, could not sleep, had headaches, and he felt that he was nearly at the end of his rope. The thing he was suffering from was chronic intestinal auto-intoxication, and we taught him a new way.

Now, I am very proud of Mr. Grabe, because when he found out the right road he took to it heartily. He said, "This thing is right, I know it is right; it is natural, sensible; it is the right way, and I am going to follow it." And for eleven years he has been following it. He is nearly fifty years old, and I want him to tell you about the old way and the new way, and how the new way suits him and what it has done for him. He is not here as a patient, but comes to see us once in awhile. I have great pleasure in presenting Mr. Grabe.

MR. A. W. GRABE: Doctor, I would sooner chop a cord of wood than to talk before an audience. I have never done it before in my life. But I wish to say I am very grateful to this institution for the good I have got out of it. As the Doctor has said, eleven years ago I was almost a physical and mental wreck. And I came here after I had consulted doctors for about five years, taking medicine, and thinking I could get my health that way; but I found I could not. After coming I was in bed for two or three months; and after I got out of bed, I went to the outdoor gymnasium, got next to nature, and in one week's time I felt I was ready to go home; but the Doctor seemed to know better, and telegraphed home to have them keep me here. I stayed here two weeks longer, and went back home.

I have worked ever since, and have lost no time with the exception of coming down here for a month or two sometimes in the spring of the year just to enjoy the good things here and to learn new facts and principles, which I do every time I come.

I used to think it was necessary for a man to eat two or three pounds of meat each day to keep in good physical strength. I can assure you that

This is All False.

I kept for years the figures in calories of what I ate, and I averaged about 1,650 to 1,800 calories of food a day; and for physical endurance, I run two miles every morning, rain or shine. I exercise at home for half an hour, take my shower bath, eat my breakfast, which consists of Sanitarium foods, and go down to work. I have large responsibilities there, and plenty of opportunity to expend my energy with the different institutions including the big power plant. I carry my dinner from home, and in the evening I have a little fruit and one rice biscuit.

After supper, I enjoy the company of my family, or go out to walk, or perhaps to some entertainment; and I do not lose any weight. I weigh 157 pounds without clothing, and I want to say my physical strength is better to-day than it was twenty-five years ago, and I am certainly glad to be here, and glad I came here years ago. If you wish to ask any questions on my manner of living, I shall be glad to answer them.

Question.—How much beefsteak have you eaten in the last eleven years?

Answer.—I haven't tasted it at all, haven't touched it. I have not eaten any eggs for two years now. I am better for not eating eggs. I eat cereals, fruits, nut foods, plenty of baked potatoes, and raw foods occasionally.

Q. Aren't you tempted to fall from grace sometimes?

A. Yes, I am tempted every day, being around the hotel; and I used to be fond of drink and was quite a smoker, but I have given all that up.

Q. What was your blood-pressure when you came here?

A. It was 220. The doctor at that time said I had hardening of the arteries.

Q. What is your blood-pressure now?

A. The last tests it has run about 115; it is about normal, I understand.

Q. Do you ever try any gymnastic feats?

A. Last summer, at forty-nine years old, I took the mile and a quarter boatrace in Milwaukee in the competitive function. I was training on rice biscuits, corn flakes and other health foods, and they didn't suppose I was going to last; but I found my opponent, who lived on a meat diet, was explosive and quick, but he did not seem to have endurance. He started off about a boat's length ahead of me, but after a quarter of a mile he began to fall back, but I kept on the same old speed, and when I got through I was as good as I ever was.

Q. Who were you rowing against?

A. We went in with the Chicago Rowing Club.

Q. You are a member of the Milwaukee Rowing Club?

A. Yes, I am a member of it.

Q. You are the champion, then, of the Milwaukee and the Chicago rowing clubs?

A. Well, I am one of the champions.

Q. You came out at the head of the best of them?

A. Yes, sir.

Q. And won a rowing race of a mile and a quarter in what time?

A. Some eleven or twelve minutes.

Q. Between eleven and twelve minutes?

A. I don't want to go on record for that.

DOCTOR KELLOGG: We caught Mr. Grabe off guard. I want to know, Mr. Grabe, if you ever feel at any time that your diet is not amply sufficient to keep you up in your hard work. You are only eating 1,600 to 1,800 calories a day, you say.

A. I can say to that, five or six years ago I was called upon to go down to a big cement works in the middle of winter with the mercury 32° below zero. Two or three other men went with me to make a test. I had my meals for six days in a satchel. I would not go to the dining car or to the hotel. I just simply ate my breakfast and dinner from my satchel. The second day one of the men, not being careful with his food and water, was sick, took the train and left the place. The head man caught a cold that kept him in the hotel, and the other man took sick; and I did the work for five days, making evaporating tests, and tests of the quality of the cement, and telephoned the results every half hour to the hotel. One of the men died from the exposure.

Q. You were kept on duty a good many hours day and night?

A. Yes, I kept right on, taking no time off at all.

Q. You only eat about half as much as the ordinary man does. Don't you get faint and hungry every now and then?

A. Not as I used to when I ate more; in fact, I do not get faint or hungry any more.

Q. If you miss a meal do you feel really used up?

A. I never miss one. The meals are so good I do not miss them.

Q. You said you used to use tobacco. Do you now?

A. I smoked fifteen or twenty cigars a day for stimulant, to keep up. I saw how foolish it was. My stimulus now is to get out into the fresh air and work up stimulation that way.

Q. You used to drink some beer, you said?

A. I used to drink a lot of it; I am from an old German family, you know, who think the more beer you drink the stronger and bigger you get.

Q. Did you find when you changed your diet, and stopped eating beefsteak, that the appetite for those things disappeared?

A. Yes, very rapidly. I had tried to stop it; but when I came here and went back, nobody could tempt me any more, although I admit I was careful to avoid the temptation; but the appetite left me. The appetite for pepper and all the strong, hot things left me; I do not use any pepper, mustard, or salt; I use the food just the way nature makes it, and no meat.

Q. Does your family live as you do?

A. I have one daughter, twenty years old, who six or seven years ago thought I was right, and she stopped eating meat; and I am glad to say she weighs 148 pounds, swims, and can do all kinds of stunts in the gymnasium, and she is the strongest one in the family, and has been a vegetarian for six years.

Q. Would you have any objection to letting us have a look at your arm? (Exhibits a masterly arm.)

A. Yes, and yet when I first came here I was tied up from rheumatism and uric acid, so I could hardly move. I can now bend down and place the palms of my hands upon the floor without bending my knees, and put myself into all kinds of shapes. (Illustrating) (Applause). I attribute that entirely to this diet. It doesn't seem to make any demand on my energy at all in doing work now.

Q. When you run a couple of miles in the morning, do you get short of breath?

A. No, I never get short of breath. My wind is never affected.

Q. Some of your friends are a little skeptical?

A. Yes, they called me a crank, and this and that. I was in Chicago yesterday, and I sat down at a table, at the Blackstone, and the others had their great big steaks, and this and that; and I drank a glass of water, joked with them; and I finally got on my train, took out my food and ate it, and I enjoyed it very much.

Q. You brought your dinner with you. Of what did it consist?

A. I had some rice biscuits, two slices of graham bread, with dates and nut mixture, and as I could not carry yogurt with me, I had yogurt cheese. I am a great believer in

yogurt. I have it three times a day. I finished my meal with a fine orange. When I arrived here in the evening I was ready to go into the gymnasium and do a good ten or fifteen minutes' work. For supper I usually have a glass of yogurt, probably two rice biscuits, and some stewed fruit of some kind.

DOCTOR KELLOGG: We are sometimes tempted to feel that much of our work is almost lost because so many of our patients backslide when they get home. But when I find a man who has been making a practical application of what he learns, the results always encourage us greatly.

Mr. Grabe is an engineer, and he has become expert in his profession by giving attention to every new point he could gain. He knows all about his lamps, and when their efficiency begins to diminish, they go back to the factory. He can not afford to make current for poor lamps. So he tests his coal. He tests his boilers to see that the engineers and firemen are getting the proper amount of steam out of the coal.

He very easily got hold of the idea of

Applying the Same Principles to Himself.

He had been estimating the calories in his coal, and he saw the point right away of estimating the calories in his food, because food is fuel. It has been a matter of very great interest to see this man keeping right straight along all the time without any coaching. The majority of people know perfectly well what they ought to do a great deal better than they do it. When a man finds out what is the best way to feed a horse, he feeds that horse just that way. When a farmer finds out how to cultivate his land to get the largest returns out of it, he does it in that way. When a business man finds out how to do business in a way to make the most money, he takes care to keep on doing it in that way. But when a man finds out how to get out of his body the greatest amount of efficiency, he does it just as long as he is afraid he is going to die pretty quick if he doesn't. But just as soon as he gets over being scared, he goes back to the flesh-pots, cigarettes, cigars, beer, and all the other things he used to enjoy.

It is a good thing to get thoroughly converted and reformed, and to get so thoroughly reformed that you won't have any hankering for the old things any more.

Thou who hast made thy dwelling fair
With flowers beneath, above with starry
lights,
And set thine altars everywhere—
On mountain heights,
In woodlands dim with many a dream,
In valleys bright with springs,
And on the curving capes of every stream—
Thou who hast taken to thyself the wings
Of morning to abide
Upon the secret places of the sea,
And on far islands, where the tide
Visits the beauty of untrodden shores,
Waiting for worshipers to come to thee
In thy great out-of-doors!
To thee I turn, to thee I make my prayer,
God of the open air.

—Henry Van Dyke.

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WHAT IS A CALORIE?

IN response to the request that he would explain the term calorie, Dr. J. H. Kellogg said in a recent lecture:

One heat unit is the amount of heat required to raise a pound of water one degree of temperature. This method is used to determine the value of different coals. For example, here is one kind of coal one pound of which will raise fourteen thousand pounds of water one degree in temperature, or fourteen hundred pounds of water ten degrees of temperature.

A calorie is simply a French heat unit. It is the amount of heat required to raise a kilogram of water one degree centigrade in temperature. A kilogram of water weighs two and one-fifth pounds; and one degree centigrade is equal to 1.8 degrees Fahrenheit; and if you put those things together, it is almost exactly equivalent to raising four pounds of water one degree Fahrenheit; so one calorie is equal to four heat units, B. T. U. (British Thermal Unit). For instance, an ounce of butter, which is said to have 264 calories, if burned would produce sufficient heat to raise 1,056 pounds of water one degree of heat. An ounce of pecans, or pine nuts, is equal to 200 calories. An ounce of starch of flour is equal to 100 calories. Burn that ounce of flour and it would produce heat enough to raise 400 pounds of water one degree in temperature.

When we put that food into the body it is burned in the body. Food is fuel. The resemblance between food and ordinary fuel is absolutely complete. Put bread into a furnace and it will burn. Put it into our bodies and it will burn. We do not see it burning, but we see the consequences of it. Your flesh is warm. The blood is warm. The temperature of the body is from 98° to 105°. The liver, for example, has a temperature of 104 or 105°. What keeps this temperature up is the burning that is all the while going on within the body.

The ordinary burning we call flame combustion; but there is a wet combustion also, which is the kind of combustion that takes place inside. When I was down in Porto Rico last winter, I saw the women washing clothes on the banks of a stream; they floated the clothes out into the water, then brought them up and rubbed them on a stone. And after rubbing a little while, they took

these clothes that looked still rather murky and stained, and spread them out on the grass. The sun is very hot there, and every little while a girl came around and sprinkled the clothes with water, and in the course of twenty-four hours those clothes were bleached out as white as snow. The oxygen that is in solution in the water, entering into combination with the combustible materials that stain the clothes, under the influence of the sunlight produces wet combustion. It is the same way food is burned in our bodies. So the calorie is the means by which we measure the value of the food. Of course, the nutritive value of foodstuffs in the body is not quite the same as the value that is obtained in burning, because the combustion in the body is not quite so complete as the burning. This is particularly true of protein.

SHALL THE GOVERNMENT GUARD THE HEALTH OF THE PEOPLE?

THE movement introduced in Congress by Senator Robert L. Owen, looking to the establishment of a department of health in the executive cabinet of the general government, proceeds slowly toward accomplishment. Naturally the movement meets its full share of opposition from those who are moved by various considerations. One class fears for the fate of cheap nostrums from which fortunes are being made through the gullibility of the sick people, with whom the taking of patent medicines has become a fixed and terribly prevalent habit. Doctor Wiley says we are a nation of drug-takers. There are certain cults of healers who fear that such a measure would prove a death-trap to their craft, that it means a monopoly of the medical profession by those who obtain the power. Others are fearful that such an establishment would result in the curtailment of personal liberty. Some people are so fearful of being compelled to do something, that they would evidently prefer to die having their own way than to live after the suggestions of somebody else.

Congress at the session recently adjourned did not take the matter up very enthusiastically, though it has the recommendation of nearly all those who have the real welfare of the land at heart. Senator Owen has now provided an amendment to the Act that is calculated to eliminate from it every feature from which sensible people could by any means take alarm. While immunity is not promised to those who are preying upon the lives and health of the public for selfish purposes, it is provided that no partiality shall be shown in favor of any class of practitioners or against others, and that there shall be no infringement upon private property or premises.

The aim of the measure is not coercive or partisan; its sole aim is the general good of the public in matters of health, and the aim will be promoted by thoroughgoing study and investigation of the origin and causes of diseases, and the best and most scientific measures to be taken for checking their ravages. The great work to be done at present is not the enforcement of legal restrictions and requirements; these are probably nearly ample as they exist in quarantine and sani-

tary regulations, and only need to be enforced. Now the people need to know the source of the dangers that threaten them so seriously, those insidious dangers that lurk in the habits of the individuals that compose our population. These habits can not be reached, at present anyway, by laws or requirements, but must be combated in the convictions and sentiments of the individuals themselves, by means of a thorough education, a competent understanding of the important relation that their habits of eating, drinking, dressing, and living in general have to their health.

The aim of the proposed department of health is to promote this knowledge under the impartial and wise administration of disinterested men who are the agents of the government, having the welfare of its citizens as its highest consideration.

DR. WILLIAM E. GEIL, the noted traveler, author and lecturer, was a guest for a few days at the Sanitarium, during which time he delivered his lecture on "The Great Wall of China," before a large audience of men in the Congregational church. Though China is so populous, he said that she could easily accommodate another four hundred million of people. He spoke of her enormous mineral wealth, and affirmed that China had coal enough to supply the whole world for a thousand years. All this great wealth has practically been undeveloped, as the people believe that the sinking of a shaft would pierce the back of the great Dragon, and so rouse his anger and produce untold misery. Through the noble ministry of the missionaries, the Chinese have been largely released from that terror; and in consequence her vast natural resources are being opened up.

SLEEP AND INSOMNIA

(Continued from page one)

sleep-walking. And sometimes one talks in his sleep; in such cases his sense of speech must be awake to a certain extent, if we use the term "awake" with the idea that it means activity. And so the whole of the brain is not necessarily always asleep at any given time. In the best form of sleep, we are entirely unconscious of our surroundings.

Another change in the functions of the body is

The Loss of Voluntary Movements.

A person is not active when he is asleep, except in certain abnormal conditions. The motor function is greatly reduced or entirely absent in normal sleep. And there is a loss of sensation. Of course a man can be stimulated while he is asleep to such a degree that he awakes, and in this we have an illustration of the fact that external stimulation is the thing that keeps us awake, and the thing that awakens us when sleeping. Of course the readiness of response varies with varying conditions. When the body is rested, it does not take so much stimulation to respond as it does soon after falling asleep.

Important changes occur in the circulation of the blood. Probably the principal cause of sleep is the recession of blood from the brain. There are a number of very interest-

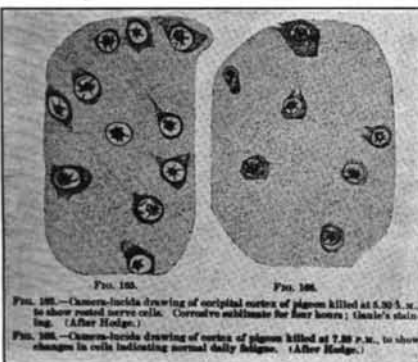
ing experiments that go to show that. If a man lies down upon a plank that is nicely adjusted in the middle on an even balance, and is allowed to go to sleep, his feet will go down and his head will go up; and then if he is suddenly awakened, the balance is reversed. That is because the blood recedes from the brain and passes into the extremities when he is asleep.

Then, it is proven that the legs and arms are larger in sleep than in wakefulness, which goes to show the presence of more blood in the limbs in sleep, and less blood in the brain.

This change in the circulation of the blood during sleep is

A Protective Measure

on the part of nature, for the blood passes into the extremities and keeps them warm during sleep. The blood-pressure is less when we are asleep than when we are awake. And this is why it is that in hyperemia, too high blood pressure, or some organic change in the arteries, the physician



encourages sleep; because the more hours in the twenty-four we can keep the blood-pressure down, the better it is for the man.

Another change in the functions of the body during sleep is the change in respiration. Respiratory movements are more shallow and slower while sleeping than while we are awake. There is less carbonic acid gas given off, and more oxygen is stored up. We store up oxygen in the tissues while we are asleep. When we are active, we use up the oxygen we take in while we are sleeping, and this is a good reason why one should get all the fresh air he can during sleep. Sleeping out of doors will take the place to a great extent of the lack of exercise that some people suffer from during the day.

Thus, most of the

Functions of the Body Are Reduced During Sleep.

The circulation is lessened, the respiration is slower, the nervous system is at rest, and the glands, at least most of them, do not secrete so rapidly during sleep as they do when we are awake. And here is a reason why one should not eat late suppers before going to bed. When one eats a hearty meal and retires, he does not digest it as well as when awake; because the digestive function is reduced while we are asleep.

Another very important change that takes place in the body during sleep is the change in the nervous system, the most important change of all, I think. The purpose of sleep is to give an opportunity to build up the

nervous tissue. During sleep the food is transformed into nervous energy. As we go down through the day doing our work we are using up nervous energy. The nerve cells become debilitated and worn out. The nerve cell that is tired out is smaller than the cell which is rested; it is shrunken, irregular in outline, and has not so many granules stored up in it, as will be seen in the illustrations. The foods we take into the body during the day are changed and assimilated during the night, changed from bread and butter into muscles and nerve cells. There is no need of spending one-third of our time in

bed unless we accomplish something, and the thing we should accomplish is to build these nerve cells up, changing them from a tired, exhausted, shrunken condition to a condition of vigor and health.

The other tissues of the body also increase while we are asleep. We make blood, nerves, muscles, and bones while we sleep; this is the important period of the day; sleep is the time when everything is renewed. And so it is a very important function of the body. And it is a function that is very easily disturbed, and for that reason we should be careful in our dealings with it.

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The Medical Missionary (Monthly)50 " "

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A Two-Years Course. Each year comprises thirty-five weeks and an eight-weeks Summer Course.

By affiliation of this school with 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, \$40. 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.

Insomnia

Insomnia is not a disease; it is a symptom—it is always a symptom. Sometimes it is a symptom so troublesome that it rises to the dignity of a disease; and yet it is not, strictly speaking, a disease. It always indicates ill health. Insomnia is a term used to indicate a condition of insufficient sleep, superficial sleep, or poor sleep. The normal amount of sleep required by healthy individuals is probably about eight hours out of the twenty-four. About one-third of our time is spent in sleep, and if we sleep well, it is time well spent.

Heredity is not very active in producing insomnia, and yet I have seen a few individuals in my experience where heredity was perhaps nearly the whole cause of insomnia. These cases are not numerous, but they do occur.

One of the causes of insomnia is the keeping of irregular hours, retiring irregularly. There is no function of the body that is so easily disturbed as the function of sleep. If one goes to bed at different hours of the night, the function of sleep is disturbed, and one gets insomnia from this bad habit.

There are some people with sensitive nervous systems, people who have neurasthenia, whose nerves are easily disturbed, in whom the function of sleep is more apt to be dis-

turbed than in others whose nervous system is more stable. Then, again, there are certain mental cases of worryment, as fright, anxiety, disappointment, a bad conscience, all of which, acting through the mind, have an evil influence on sleep. People who are happy and contented and satisfied are usually good sleepers.

People's Habits Prohibit Sleep

Then there are a great many things which people eat or drink that disturb the function of sleep. Tea and coffee are great sleep disturbers. Tobacco acts in the same way. Of course there are men who use tobacco day after day without disturbing their sleep very much, but there are instances where tobacco disturbs the sleep. The nicotine of the tobacco is a poison, it is an irritant, and it disturbs the functions of the nerves, and it very often produces insomnia.

Alcohol is another cause of insomnia. Sometimes a physician prescribes a glass of beer to produce sleep. And it will make the patient sleep, but in a few nights he will have to take two glasses, and then he will have to increase that to four, and perhaps he will have to have something stronger, and then he does not sleep; no matter how much alcohol he takes, he does not sleep, the blood-vessels become dilated and crowded

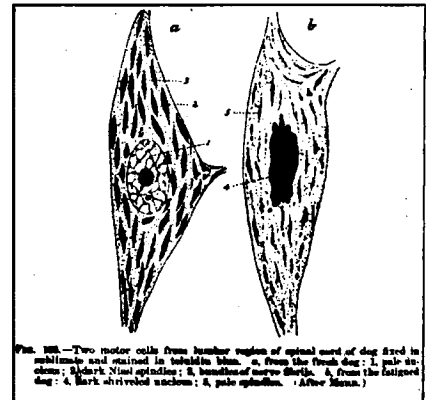
with blood and he has a passive congestion of the brain, and then we have a man troubled with chronic insomnia as a result of the chronic use of liquor. Perhaps these men are never intoxicated in the usual meaning of the term, but really they have been intoxicated every day for years, perhaps. Alcohol, I am sure, causes insomnia when it is used for any length of time.

And of course all these things should be discarded—tea and coffee, tobacco and alcohol, particularly by one who does not sleep well.

And then there is

The Use of Drugs

as another cause of insomnia. These include morphine, cocaine, and all the hypnotics; if they are taken for a time, they leave one in a condition of chronic insomnia. I am not saying that I never make use of them in my practice, but I use them as little as possible. And this statement is true, that any drug that will put a man to sleep will do him harm in some way. I am sure that is not an extravagant statement. When one goes to sleep under the influence of a drug, it is because the normal irritability of the nerve cells is reduced, and the normal build-



ing-up process is hindered. So these things should be discarded.

Then any disease of the body may cause insomnia, as disorders of the digestive tract, various kinds of indigestion, and constipation. And with any of the acute fevers, one does not sleep; and the thing to do in each case is to relieve the body of the poisons.

Please remember that

Insomnia is a Symptom,

not a disease. People who do not sleep are apt to be very much annoyed by it; they become anxious about it and think something terrible is going to happen. It is very desirable, of course, to have enough sleep, but nothing very bad is going to happen if one does not sleep. We must remember we can get rest even if we do not sleep. An individual who lies in bed without sleeping is getting a rest, not resting so well as if sleeping, but he is getting a rest, and need not fear any dreadful results.

There are a number of things that we can do to correct insomnia. First of all, a very important thing to do is to correct bad habits of eating, stop the use of alcohol, tobacco, tea and coffee. Eat plenty of wholesome, nutritious food; there is no sense in trying to starve yourself, to impoverish your

A CHANCE FOR STUDENT NURSES

THE BATTLE CREEK SANITARIUM AND HOSPITAL TRAINING SCHOOL FOR NURSES

offers exceptional advantages to those who contemplate taking up the Nurse's profession. A Three-Years'-Course is offered to Women, and a Two-Years' Course to Men. Over two hundred Nurses are employed in the institution.

The demand for Nurses who are trained in the Sanitarium principles and methods is constantly increasing, both in the institution and outside. A good salary awaits those who finish the course.

In addition to the usual subjects taught in hospital training schools, special attention is given to all branches of physiologic therapeutics, including hydrotherapy, radiotherapy, electrotherapy, 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.

For full information address

SANITARIUM

Battle Creek, Mich.

body, or anything of that sort; we don't believe in that here. I never heard of people starving here because they could not get food. The body should be thoroughly nourished. If one is troubled with insomnia, he should not use stimulating food. Highly seasoned food is stimulating, particularly for children.

The insomnia may be simply a symptom of some particular disease that should be treated and looked after. All of the functions of the body should be properly looked after. One should have a proper hour and regular time for retiring. He should put away all fears and anxieties and worries of every kind. A contented frame of mind is conducive to sleep, and to health also, and it should be encouraged and cultivated. The sleeping-room is an important thing. I would advise every one to sleep out of doors. Most modern houses are arranged for sleeping out of doors in the summer time. This is an excellent idea, and it pays well.

ARRIVALS

THE list of arrivals at the Battle Creek Sanitarium for the week ending April 9 is as follows: H. Rosenbluth and wife, N. Y.; J. F. Cooper, Detroit; N. L. Hoag, Mich.; Dr. J. T. Canaughy, La.; Jenny E. Crozier, M. D., India; John Batchelder, Minn.; Val- lie Ely and Mrs. P. E. Fuller, Ill.; Anna M. Stevens and Fred C. Stevens, Ia.; Weld T. Burdick, Mich.; Geo. Mahon, Tenn.; Jesse Mack, Detroit; W. Carl Rufus, Korea; Mrs. J. W. Jackson, Mich.; A. D. Chenoweth, Mo.;

B. L. Kues, Minn.; Mrs. A. P. Gilmore, Miss Isabell Gilmore, Mrs. Schoneau and Mrs. W. E. Pinney, Chicago; Mrs. Frank Braddus, Ind.; Miss Florence Stout, Indianapolis; Julian Bostwick, Detroit; Mrs. Mary S. Herr and Albertine Herr, O.; J. E. Husband, Pa.; Adair Ziegler and wife, O.; Elizabeth Gowan and G. B. Goff, Mich.; S. M. Barnett and wife, Miss.; Mrs. S. B. Fleming, Chicago; Mrs. M. A. Thomas, Mo.; Mrs. Geo. H. Allen, Wis.; Mrs. Chas. Degen, Minn.; Jas. A. Swoyan, Mich.; H. E. Harman and Miss Harman, Ga.; Dr. W. W. Strayer, O.; Mrs. R. G. Hays, Toledo; W. P. Clarke, Jennie Clarke and Master Henry Clarke, Turkey; W. D. Williams and C. G. Campbell, Neb.; Jas. S. Hiatt, Philadelphia; John Martin, Chicago; O. P. Schriver, Ky.; M. G. T. Craven, O.; Clara V. Howard, N. Y.; P. H. J. Lerrigo, M. D., Philippine Islands; Wm. Burtless, Mich.; Dr. McMillon, Calif.; Ed. Long, Ind.; P. E. Holp and A. F. Smith, Chicago; Henry Jealison, Milwaukee; John Bacon, Ky.; Mr. and Mrs. Harder, and Mrs. Binz and daughter, Chicago; Miss S. T. Green, Ky.; J. D. Burns and wife, Tex.; Chas. Wolohan, Mich.; Virginia Hamilton, O.; Miss Martha P. Chisel-dine, Cincinnati; J. H. Edgington, Tenn.; Mrs. V. E. Steen, Mo.; Henry J. Stevens and wife, Colo.; Mrs. P. C. Pryor, Mich.; Mrs. F. H. Gardiner, Detroit; Mrs. F. W. Karg and son, Mich.; Miss E. Spencer, Toronto; Jno. C. Corland, Toledo; C. O. Boyd, Calif.; T. A. Burt, Ill.; John F. Lynn, Mo.; Eliza Trato, Chicago; Mr. and Mrs. W. K. Worley and Jas. F. Shepherd, Mich.; I. E. Hanna, Ind.; Mrs. W. H. Jones, O.; Miss Susa Green, Ky.; Mrs. R. F. Weedner, Ill.;

Dr. and Mrs. L. Curtis, and Mrs. Cora J. Cummings, Chicago; Louis J. Anger and A. C. Anger, New York City; Robt. O. Oren, Mich.; R. E. S. Keel, Cleveland; Mrs. J. A. Baldwin, Ill.; Mrs. W. A. Brown and son, and Mrs. E. A. Taggart, Ill.; Mrs. Mary Banfield, Ind.; F. M. Barnhart, O.; Mary Ramsay, Mich.; C. E. Smith, N. D.; H. T. Adams, Va.; W. Marker, Hon. Chase S. Osborn, and Jas. Russell, Lansing; J. F. Tatman, Mich.; W. C. Hazard, Chicago; Mrs. Chas. Wilson, F. C. Van Dye and F. C. Fulkerson, Mich.; J. M. Strong, Cleveland; J. W. Jackson, Mich.; Geo. W. Smith, Ill.; John Holleran and John Wickham, Duluth; Geo. P. Jones and Mr. and Mrs. F. E. Avery, O.; F. H. Sternback, Chicago.

News and Personals

Mrs. W. H. Jones is visiting her daughter, Mrs. Moyler, who is a patient in the Sanitarium.

The Sanitarium nurses are busy closing up their year's work preparatory to graduation, which is to take place on June 6.

Mr. Robt. Oren made a brief visit to his father, ex-Attorney-General Horace E. Oren, who with his wife is taking treatment at the Sanitarium and rapidly improving.

Mr. and Mrs. W. K. Morley, of Grand Rapids, Mich., have returned to the Sanitarium for their annual visit. Mr. Morley is manager of the Interurban Railroad.

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,

LENA F. COOPER, Director,
Battle Creek, Michigan.

Dr. Henry S. Curtis, playground lecturer, of Clark University, Worcester, Mass., paid a brief visit to the Sanitarium during the past week. Doctor Curtis was accompanied by his wife.

H. E. Harmon has spent a few days with his wife, who is a guest at the Sanitarium. He was accompanied by his daughter, who is attending school in Washington. She will spend the Easter vacation with her mother.

Mr. John Bacon, one of the prominent men of Louisville, Ky., who is a long-time friend and frequent patron of the Sanitarium, has returned for his yearly visit and is warmly welcomed by the Sanitarium family.

On Tuesday evening Col. P. E. Holp gave a fine illustrated lecture on California, describing the development of irrigation and opportunities on the Pacific slope. The views were very fine and the large audience was greatly interested.

Hon. Chase S. Osborn, Governor of Michigan, paid a brief visit to his daughters, Mrs. Ferguson and Miss Osborn, who are taking a course of treatment at the Sanitarium. He was accompanied by Mr. Jas. Russell, warden of the State prison in Marquette.

Mrs. Winona Pinney, Mrs. A. P. Gilmore and Miss Isabel, of Chicago, have returned for a course of treatment. Also Mr. Chas. Wolvhan, a dealer in wholesale produce from Birch Run, Mich., and Mr. P. O. Boyd, owner of a large ranch and fruit farm.

A very attractive folder has been prepared by the Normal School of Physical Education, illustrating the Summer School which is to be held from June 30 to August 25. This course will be especially valuable for teachers, as well as others interested in the physical directorship as a profession.

Dr. Jenny E. Crozier, a Methodist missionary of Mandhan, India, is taking a short course of treatment in the Sanitarium. Dr. and Mrs. P. H. J. Lerrigo, of the Philippines, who are serving there under the Baptist Board; Rev. W. P. Clarke, Congregational minister in Monastier, Macedonia, and his wife; Miss Spencer, a Methodist missionary of Japan; and Rev. W. Carl Rufus, of the Methodist Mission in Korea, are among our newly arrived guests.

Miss Youngberg, secretary of the Nurses' Alumni Association, has received several replies in answer to the news letters which were sent to all the alumni members. These letters contain numerous expressions of appreciation of the remembrance, and a practical expression of their interest is shown by the payment of fees. Several contributions have also been received for the sick nurses' fund which is being established by the Nurses' Alumni.

An enthusiastic audience gathered in the parlor on Wednesday afternoon to spend an enjoyable hour with the Victor gramophone which had been loaned for the occasion by Doctor Vince, the Sanitarium dentist. There

were selections by Melba, Caruso, Telrazinni, Scotti, Semblich, and Mischa Elman. Also orchestral selections by the Victor orchestra and Sousa's band. During the afternoon Miss Florence Walker gave an excellent reading from "Mrs. Wiggs of the Cabbage Patch."

An excellent entertainment was given in the gymnasium on Saturday evening by the Strollers' Quartet. There was a large and enthusiastic audience. From their first entry upon the platform every number of the program was well received and the young men graciously responded to many *encores*. Besides the quartet singing there were special solo numbers and selections on the violin and piano. Mr. Longstreet, the reader of the company, elicited much applause by his clever work.

Among the new arrivals we notice Mr. and Mrs. Henry J. Stevens, a prominent man in investigations and banking, of Denver, Colo.; Dr. A. F. MacMillan, of San Jose, Calif.; Rev. and Mrs. Edwin W. Bishop, pastor of the Congregational church of Grand Rapids; W. T. Burdick, a prominent journalist of Lansing, Mich.; Dr. J. T. MacConnaghey, who has an extensive practice in Iowa; Mr. W. L. Haag, a manufacturer of Lansing, Mich., who is well known among Sanitarium guests.

The Sunshine Hour, conducted by Doctors Read and Otis in the parlor every afternoon from 3:00 to 3:30, is always a delightful and improving occasion. New patients especially find this a most delightful means of getting at once acquainted with the life and principles of the institution. Good cheer and optimism are in the air and are contagious. Sunshine hour is a good antidote for blues and homesickness when such symptoms appear. One goes away feeling that he has been inoculated with new life and hope and courage to battle manfully for renewed health and vigor which are in store for him.

Rev. W. P. Clarke spoke in the parlor on Sunday evening. The meeting was led by Elder McCoy, and Mr. Clarke gave an account of the physical, political, and race conditions of Macedonia particularly, but spoke also of Bulgaria, in which country he was born and where his father is still laboring, having spent fifty-one years there. These missionaries are engaged in educational and evangelistic missions, and the natives of these countries are being trained to carry on Protestant mission work. In that region no less than seven different languages are spoken. Notwithstanding this plurality of tongues, the English language is being taught in all their schools.

At the vesper service in the parlor on Sabbath evening, Dr. P. H. J. Lerrigo gave an informal talk on some personal experiences in Alaska. Doctor Lerrigo went to Alaska as physician in connection with the government expedition for the introduction of the domestic reindeer, but arriving in that extreme northern climate, he exchanged this position for work as a missionary upon a lonely island in the north of the Behring Sea, known as St. Lawrence Island. He had some amusing experiences teaching him-

self to cook, and relates that his first loaf of bread had a crust three inches thick and that the crumb was nothing but a hole. He told of the extreme poverty of the lives of the Eskimo and of the deleterious effect produced upon their health by an almost exclusive meat diet, and said that the dire want of their physical lives was typical of the poverty of their spiritual condition.

The Sanitarium Christian Endeavor meeting was held as usual on Friday evening and was under the auspices of the missionary committee. The subject of the meeting was, "Missions in the West of the United States," and was very ably led by Doctor Barnhart. Several members had prepared glimpses of life and mission work in many sections of the West. Doctor Mortensen spoke of the work among the Scandinavian settlers, Mr. Capron told of the pioneer work in the West, and Mr. Charnley gave a short account of Dr. Sheldon Jackson, the American pioneer of the West. Mr. McKersie told of his experiences among the Indians in the West, while Mr. Adams gave some glimpses of what is being done for the Chinese settlers of the West, and Miss Youngberg told of the work among the Japanese. What is being done in Alaska was told by Mr. Gordon C. Clark, and a glimpse of the work among the Mormons was given by Mr. Barr. Mr. Gaunce had prepared a talk upon "Missionary Work among the Lumbermen," but was unavoidably prevented from being present by his duties. Other members took part in the meeting, giving facts especially bearing upon the topic of the evening. Next week there will be an Easter service with special music.

A delegation of twenty-seven ladies of the Marshall W. C. T. U. visited the Sanitarium on Thursday last under the escort of two of their officers, Mrs. Carrie Darrin, the president, and Mrs. C. O. Miller, the corresponding secretary. The party was received by Mrs. A. W. Emmons, the president of the W. C. T. U., and Mrs. G. D. Dowkontt, and was first taken to the parlors, where Dr. A. J. Read spoke a few words of welcome and encouragement in their work. They were then conducted over the building, supper was served at five o'clock for the party, and then an exhibition of Philippine curios was seen in the fifth floor parlor, where Doctor Kellogg met the ladies and spoke briefly of the importance of their work and the necessity of continuing the warfare against not only the saloon and tobacco, but against all the dietetic errors which hinder the health and efficiency of the people. The party was then conducted to the gymnasium, where they watched with much interest the evening drill and grand march, after which they were shown a series of moving pictures, representing the dairy farm of the past, and its modern hygienic development. Then a half hour's music in the parlor by the Sanitarium orchestra preceded Doctor Kellogg's regular lecture, which was illustrated with stereopticon views, and was listened to with close attention by his entire audience and particularly by the delegation from Marshall, who doubtless received from it much inspiration for their future work.

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A NEW GOVERNMENT DEPARTMENT

The Bill for the Establishment of a Department of Health in Our General Government

FOLLOWING is the text of the bill introduced into Congress by Hon. Robt. S. Owen, Senator from Oklahoma, and now pending. It is entitled, A Bill to establish a Depart-

Water as a Curative Agent

The Many Uses of Water in the Treatment of Disease—The Underlying Principles of Hydrotherapy

It is not at all correct to denominate the Battle Creek Sanitarium a "water-cure," as that would indicate that it employed water exclusively in the treatment of the sick;

The Causes of Degeneracy

Are Exclusion from the Sun and Air, Improper Food and Want of Exercise—Why the Black Race Appears at an Advantage—From a Lecture by Dr. J. H. Kellogg

BOOKER T. WASHINGTON told us while he was here the other day that the white race



THE PALM GARDEN

ment of Health, and for other purposes.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled. That there be at the seat of government an executive department known as the Department of Health, and a Director of Health, who shall be the head thereof; and the provisions of
(Continued on page four)

whereas, the truth is that every known rational and natural agency is brought into requisition, and the use of water in therapeutics is but one of the measures employed.

Water is valued in therapeutics because of its direct and indirect effects upon the system when applied externally and internally. It is well known that the body is composed
(Continued on page four)

is degenerating, while the black race is coming up. I am not sure but he is entirely correct about it. He said he had been traveling through Europe, and in Southern Europe he could see many evidences of degeneracy; and as he was walking along the streets of London, especially in East London, he could see scarcely anybody that did not bear the marks of degeneracy; and I

am sure any of you who have been in East London will say the same thing. Down around Whitechapel the people you meet upon the streets show the marks of degeneracy in their faces. There can be no doubt about it.

A number of years ago there was

on the earth where a man can live perfectly well in an entirely normal state.

Man Certainly Was a Tropical Creature to start with, who lived upon the products of the earth that grow in tropical regions. Somebody asked me once what about the Es-

moved into a hole in the ground, and the race is still in the hole. We have built a roof over the hole, and built one or two stories or more under the roof; but we are still living in a hole; we shut ourselves away from the sun.

And another rather wide departure from the natural state was the wearing of artificial clothing. In the climate in which man naturally lives, he does not need artificial clothing, and wears as little as possible. A native of Central Africa requires scarcely any clothes, except enough to satisfy the demands of etiquette; and they have a code of modesty in that region as well as we do, and perhaps they are just as modest, as far as that is concerned.

In Relation to Diet

Another departure from natural ways, perhaps equally as great as those I have mentioned, and more direful in its effects, is in relation to diet. There is no other consideration that affects the welfare of an animal as does its diet. And in reference to diet the human race has departed far from the original bill of fare prescribed by the Creator, and far from the simplicity of living adopted by our sturdy forefathers.

Man's departure from the normal state of things has entailed many evil consequences, so that diseases are multiplying and spreading very rapidly. In the last ten years, for instance, one disease, the hardening of the arteries, one of the most hopeless of all maladies, when it is fully developed, has increased three hundred per cent. Just think of it!—Three hundred per cent in ten years! That is a terrible thing to think about. And cancer is increasing at a dreadful rate.

Referring again to Mr. Washington's remark that the white race is going down and the black race is coming up,—

That May be So, and it May Not be So.

I called his attention to this very interesting fact which the United States Census Mortality report shows beyond any question, that so long as the black man keeps approximately near to the primitive habits of life



GLIMPSE OF NEGRO LIFE IN THE SOUTH

A Commission Appointed by the English Parliament

to study the question of race degeneracy and ascertain whether it was really true that the English race is going down; and this commission reported facts which were incontrovertible, that showed beyond any possibility of doubt that the people who live in the British Isles are steadily deteriorating, and at a rapid rate. Since that time other investigations have been made which are still more conclusive. For example, a short time ago an examination was made of the school children in Cambridge, and it was found that of children nine years old, there were only one and a half per cent that did not have decayed teeth; and of children eleven years of age in the public schools, there were only nine-tenths of one per cent that did not have decayed teeth. Suppose you bought a flock of sheep and found ninety-nine out of one hundred of them had rotten teeth, you would say you had been swindled; you would reject those sheep as being degenerate.

The same things that we would recognize as marks of degeneracy in the lower animals are clearly manifested in the human race. A question which the paleontologists and other scientists are discussing among themselves very earnestly these days, is as to whether there is any future for the human race. This becomes a serious question only because man has too widely departed from his normal habitats, from his normal conditions.

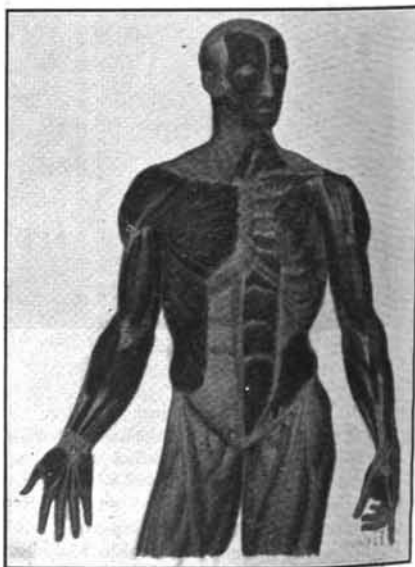
At the present time there are some places

kimo. They must have meat. They can not raise wheat, corn, and other cereals, fruits, and nuts up there, and how can they get along without meats? It is evident they can not. Then what will the Eskimo do? My reply to that question always is, He ought to move south. He is lingering in a region that is not fit to live in, a region that is not normal for a man any more than it is for a monkey; and he ought to move south to a country where he would find more normal conditions of life.

But man's desire to explore the earth, to experience everything that is possible for a human being to see and hear and smell, and taste, and experience, has led him to explore the whole earth, and to undertake to do the impossible. He is not content with living upon the earth, he must soar into the air, sail on the water, do everything that is possible to be done, live everywhere it is possible to live, without considering the effects upon the race of the long-continued change from natural environment and the adoption of unnatural practices.

Shutting Himself Away from the Sun

One thing that man has done, which is perhaps the most violent departure from his normal state of life, is to live indoors, to shut himself away from the sun. It began with the cave-dwellers away back in the ages, who moved into holes because it was cold outside, and perhaps to hide away from their enemies. At any rate, the prehistoric man



FRONT MUSCLES

that he followed in Africa, he is stronger, more vigorous physically than the white man; but when he undertakes to imitate the white man in his diet, he deteriorates rapidly. Down in South Carolina, where the colored man still lives on hoe cake and in a log cabin with plenty of wide chinks between the logs, so that he lives comparatively an outdoor life, he is almost as immune from cancer as in his native land, where cancer is entirely unknown.

According to government reports, the number of deaths from cancer among colored people for the State of South Carolina is only twelve deaths annually in 100,000; while in the same region the white people are dying off at the rate of eighty to one hundred to the 100,000, nearly ten times as many. But when the black man moves to Chicago, into the vicinity of the stockyards, his mortality goes up to 200 to the 100,000. And the same thing is true in every one of our Northern States, the mortality from cancer increases just in proportion as the black man adopts the habits of the white man. So it is not because the black man is intrinsically stronger and belongs to a more vigorous race, that he is not deteriorating as rapidly as the white man; it is only because he has not yet adopted the luxuries and pernicious habits that the white man has adopted; or at any rate, they have not been operating upon him for so long a time.

The North American Indians

were naturally absolutely free from cancer; but to-day cancer is beginning to show itself among them. Twenty-five years ago it was not mentioned at all; now it is increasing year by year. The North American Indian has been living since the Civil War on government beef very largely, and has done only a little in the way of agriculture. So he is dying off very rapidly from cancer and tuberculosis, but not nearly so rapidly, as yet, of cancer, as the white man, though from tuberculosis the mortality has been very great.

What is true of man is equally true of do-



BACK MUSCLES

mestic animals. Wild animals are free from cancer, but domestic animals are infected with cancer to a terrible extent. Eight per cent of dogs have cancer, and seven per cent of cats have cancer, and five per cent of all human beings who die in the United States die of cancer.

ation is exactly that of the water that comes dancing from the mountain side and gurgling over the stones. The water is clear as crystal, cool, sweet, pure. By and by it reaches the foot of the mountain, accumulates in pools and stays there. It will become covered with green slime, the frogs will



THE AMERICAN INDIAN AT HOME

Another Cause of Degeneracy

is that we have adopted the idleness of civilization. Mr. Washington said a very good thing when he spoke of idleness as being full of danger. Idleness is always evil. It is evil physically as well as morally, mentally, and socially; and I want to call your attention to some particular evils relating especially to the muscular system, to show you our duty to ourselves, especially those of us who live sedentary lives in relation to exercise. A sedentary life aggravates and accentuates all the evils that grow out of errors in diet, errors from the lack of sunshine, and errors in clothing our bodies.

Here are two general views of the muscles of the body; every one of these muscles is a distinct organ, every one of them exactly adapted to the uses for which it is designed. These muscles are attached to the bones. When these muscles are actively at work, blood is being pumped through the muscle. The amount of blood circulating through the muscle, while it is at work, is six to ten times the amount which circulates through it when it is idle.

Suppose you are sitting idle all day, lounging about the Sanitarium lobby, or sitting in your room reading a book, doing fancy work, or lying about on a sofa,—your muscles are in a stagnant state, but little blood is coursing through them. The situ-

ation in it, and the vermin will swarm in it till it becomes a filthy pool, because it is stagnant. Living water, moving water, is always healthy, and always fresh and pure; but stagnant water very soon becomes unclean. It is exactly so with the body, and we let our bodies stagnate by lack of exercise; the blood becomes impure, waste matters accumulate.

Every Muscle is a Pump,

and while the muscle is active the blood is forced through the muscle. The same artery which brings blood to the muscle, brings blood also to the bone which lies under the muscle. In these bones the blood is made. The laboratory in which blood is manufactured is the skeleton; that is what the skeleton is for, in part. While the skeleton furnishes a rigid framework to support the body, to build the body upon, inside of the bone are minute laboratories in which blood is made. The wonderful process by which eight million new blood cells are turned out into the blood current every second of our lives, is carried on in the bones. Upon the activity of this process, upon the amount of blood circulating through the muscles and brain, the condition of the body depends; and the kind of blood in the muscles depends upon the activity of the muscles.

The Battle Creek Idea

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MUD AND MINERAL BATHING FOR RHEUMATISM

It is not necessary to go abroad to obtain the benefits of mineral springs or mud baths. There are just as good mineral springs in this country as in any other country. Some of the mud baths of Italy have become quite famous, so much so that the mud is shipped over to this country and offered for sale at \$300 a ton, which is, of course, a modest price for mud. American mud is just as dirty as Italian mud, and is in every way just as effective in relieving rheumatism. These applications are valuable as a means of relieving pain, but the cure of rheumatism is quite another thing.

There are different kinds of rheumatism. The symptoms of rheumatism that seem to be cured by mud and mineral baths are these: A man has an attack of rheumatism that continues some time, and when he is convalescent his joints are stiff, and it hurts him to move. He goes to a mineral bath establishment, gets a few hot baths, and his joints are limbered up, and he thinks those baths have worked miracles.

That Man Was Cured of Rheumatism Before He Got His Baths.

It was the stiffness of the joints as the result of long inactivity, that troubled him, and that was quickly relieved by the hot baths. The heat is relaxing, and the elimination and the sweating is the thing that affords him relief. If this man had taken the hot baths at home, he would have had just the same relief. If he had dissolved ten pounds of salt and one pound of chlorid of calcium in the water of his hot bath, he would have obtained all the benefit that he can get from any mineral spring in the world, so far as the cure of rheumatism is concerned. Chlorid of calcium is a disinfectant to the skin, and some skins need disinfection; a great many people need disinfection inside and outside. There are cases that seem to be cured, but it is simply the effects of the rheumatism that these mineral and mud baths remove. All the patient wants is simply to be limbered up by sweating baths.

But in chronic, deforming rheumatism, sweating baths are not beneficial. Such patients go to mineral springs, take sweating baths, or mud baths, and the pain is sometimes temporarily relieved; but if the baths are continued, the patient is made very much worse.

There is no specific for this disease; it is a dietetic disorder. There are no hot baths that will cure it; there are no mineral springs that will cure it; there is no medicine that will cure it; there is no cure at all for this disease except a reform of habits, because it is a disease that results from wrong habits; it is simply deterioration of the body, and general depreciation of the vital domain.

A good many people imagine that rheumatism is due to climate. That is one of the greatest mistakes in the world. There is no climate in the world where people do not suffer from rheumatism if they violate the laws of life. Mexico has a warm climate, but I do not know of any place where rheumatism is more common than in Mexico. It is the dinner-table climate that makes rheumatism, rather than the meteorological changes to which any climate is subject.

WATER AS A CURATIVE AGENT

(Continued from page one)

very largely of this unstable element, and its presence is what gives suppleness and elasticity to the various members of the body. It forms the basis of the fluids of the body, and enters very largely into the composition of the nerve and brain and other soft tissues. It is an effectual depurant, washing away the heterogeneous and feculent matters that accumulate in the body, as well as cleansing the skin. Its use as a diluent is a very essential consideration in the vital economy.

Its Indirect Influence

is due principally to the readiness with which it lends itself as a conductor of heat and cold. It is in this latter capacity that its use in hydrotherapy is principally found, though the direct uses of water are by no means ignored in hydrotherapy. The drinking of a proper amount of water is a matter of no small significance in maintaining or regaining health. Its absorption into the blood and its supply in adequate proportions to all parts of the body is a matter of no small importance.

As a means for conveying heat and cold to the body, the use of water has no compeer. Its action is decisive and instantaneous, its effects are natural and not injurious; it is a powerful stimulant, and not a poison; it encourages healthy and normal activities and conditions without destroying the most delicate tissues. It is cheap, convenient, always at hand, and leaves no unfortunate sequelae, as is the case with many popular remedies.

All that is necessary is to have good, pure water without any foreign elements whatsoever. The question is often asked if the

Battle Creek Sanitarium

uses mineral waters; or, "What is the character of your springs?" Our waters are all water, pure and unadulterated. The purer they are, the better.

Water is used in conveying impressions of heat and cold in all stages from ice to boiling. Hot water in short applications is a stimulant; and cold water is the same. Hot water relieves pain as no other remedy will do except it be a poisonous opiate or narcotic. Water at a neutral heat has a sedative or soothing effect. Water applied to the exterior of the body affects the internal parts through the sensory nerves whose function is to convey to the parts impressions from the skin. Every internal organ or part of the body has an external "face" or section in which are the sensory nerves connecting the two regions.

There are about

Two Hundred Different Forms

of applying water in hydrotherapy, but the principles are few and simple and the objects are equally so. Heat may be applied in vapor or steam, or by means of cloths wrung out of hot water. Or it may be applied by hot water baths or sprays. These applications may be general or local. Cold may be applied in the same manner or in the form of ice. The effect of short, sharp applications of cold is highly stimulating to the vital activities. They arouse the nervous system and the whole body is, as it were, alarmed to resist the invader, as cold is regarded by the body. The blood cells are increased, the heart is quickened, and vigor is imparted to all parts. On the other hand, the continued application of cold is a depressant. The application of water affects the circulation of the blood, the heart action, the stomach and its work, and is used to arouse a torpid liver. In fact, the adaptation of water in its different forms of application to effect changes and modifications of conditions is so universal that it acts a very important part in the treatment of most diseases known in materia medica.

GOVERNMENT DEPARTMENT

(Continued from page one)

title four of the Revised Statutes, including all amendments thereto, are hereby made applicable to said department. The Director of Health shall be appointed by the President, by and with the advice and consent of the Senate, at a salary of dollars per annum and with tenure of office like that of the heads of the other executive departments. And said director shall cause a seal to be made for the Department of Health, of such device as the President approves, and judicial notice shall be taken of said seal.

SEC. 2. That there be in the Department of Health an assistant to the Director of Health, designated and known as the Commissioner of Health, who shall be a skilled sanitarian, appointed by the President, by and with the advice and consent of the Senate, who shall serve at the pleasure of the President, and who shall receive a salary of dollars per annum. The Commissioner of Health shall perform such duties as are required by law and such as are prescribed by the Director of Health. There shall be also a chief clerk, a disbursing clerk, and such other employees as Congress may from time to time authorize. The Auditor for the

State and other departments shall receive and examine all accounts of moneys paid in and of moneys expended on account of the Department of Health, and shall certify the balance arising thereon to the division of bookkeeping and warrants of the Treasury Department, and forthwith send a copy of each such certificate to the Director of Health.

Sec. 3. That it be the province and duty of the Department of Health to foster and promote all matters pertaining to the conservation and improvement of the public health and to collect and disseminate information relating thereto: *Provided*, That this Act shall not be construed as attempting to authorize the Department of Health to exercise or attempt to exercise, without express invitation from the chief executive or other proper authority of the State, any function belonging exclusively to such State, or to enter any premises in any State without the consent of the owner or occupant thereof; but the Director of Health, upon request of the chief executive or other proper authority of any State, Territory, the District of Columbia, or any insular possession, may detail for limited periods an officer or officers, employee or employees, from the Department of Health to assist the health authorities of such State, Territory, District, or insular possession in protecting and promoting the health of the people of such jurisdiction: *And provided further*, That the Department of Health shall recognize no so-called school or system of medicine.

Sec. 4. That to the Department of Health are hereby transferred the following bureaus, divisions, and other branches of the government, and all that pertains to them, and they and each of them shall remain under the supervision and direction of the Director of Health until otherwise directed by law, namely:

(a) From the Department of the Treasury is transferred the Public Health and Marine-Hospital Service.

(b) From the Department of Agriculture is transferred that part of the Bureau of Chemistry charged with the investigation of the adulteration of foods, drugs, and liquors, and with the execution and enforcement of the Act of Congress entitled "An Act for preventing the manufacture, sale, or transportation of adulterated or misbranded or poisonous or deleterious foods, drugs, medicines, and liquors, and for regulating traffic therein, and for other purposes," approved June thirtieth, nineteen hundred and six.

(c) From the Department of Commerce and Labor is transferred the Division of Vital Statistics, Bureau of the Census.

And the President is hereby authorized to transfer to the Department of Health at any time either the whole or any part, as to him may seem best, of any bureau, division, or other branch of the government engaged in work pertaining to the public health, except the Medical Department of the Army and the Bureau of Medicine and Surgery of the Navy.

And each and every function, authority, power, duty, and jurisdiction, of whatsoever character it may be, vested at the time of any transfer aforesaid in the head of the executive department from which such bureau, division, or other branch of the government is

transferred, shall, to the extent to which such function, authority, power, duty, or jurisdiction pertains to such bureau, division, or other branch of the government, immediately upon such transfer become vested and thereafter remain vested in the Director of Health.

All land, buildings, furniture, apparatus, equipment, and property of whatsoever description, and all official records and papers, in the custody of any executive department from which any bureau, division, or other branch of the government is transferred as aforesaid and pertaining to the business of

such transferred bureau, division, or other branch of the government, shall at the time of such transfer, or as soon thereafter as practicable, and in so far as such action can be taken without hindering the work of the executive department from which such transfer is made, be given over into the custody of the Department of Health. And all unexpended balances of appropriations available at the time of such transfer for the use of any such transferred bureau, division, or other branch of the government, or which may become available thereafter, shall be and remain available, in similar manner and

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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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.

Good reading for the Home Circle; Helpful, Interesting, Instructive. Fifty cents per year. To Foreign Countries sixty cents. Sample copies free. Note the Combinations offered above.

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A Two-Years' Course. Each year comprises thirty-five weeks and an eight-weeks' Summer Course.

By affiliation of this school with 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, \$40. 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.

to the same extent as if no transfer had been made.

SEC. 5. That within the Department of Health there shall be the following bureaus: (a) Bureau of Sanitary Research; (b) Bureau of Child Hygiene; (c) Bureau of Vital Statistics and Publications; (d) Bureau of Foods and Drugs; (e) Bureau of Quarantine; (f) Bureau of Sanitary Engineering; (g) Bureau of Government Hospitals; (h) Bureau of Personnel and Accounts. And the Director of Health is hereby authorized to arrange and rearrange from time to time, with the approval of the President, the functions, duties, personnel, papers, records, and property, and the work, resources, and equipment generally, coming into the jurisdiction and control of the Department of Health by the operation of this Act, so as most efficiently and economically to organize and maintain the several bureaus herein named and such divisions and offices thereof as to said director seems proper; but in arranging and rearranging the personnel, the rank, pay, and allowances of the officers of the Public Health and Marine-Hospital Service commissioned at the time of the transfer of that service to the Department of Health shall not, by reason of anything in this Act contained, be diminished. And the Director of Health may call upon the heads of

other executive departments for information in their possession whenever such information is needed for the efficient and economical working of the Department of Health.

SEC. 6. That the President is hereby authorized to detail officers and employees from any of the several executive departments of the government for duty under the Director of Health when so requested by said director, and to detail officers and employees in the service of the Department of Health to any of the other executive departments upon request of the head of such department, provided such detail can be made without prejudice to the public service, to carry into effect the purpose and intent of this Act; but officers and employees so detailed shall receive no additional compensation, but shall be paid such actual and necessary expenses as they incur in the discharge of their duties.

SEC. 7. That the Director of Health may, in his discretion and with the approval of the President, appoint an advisory board of not more than seven members, to confer with him upon his request, from time to time as he deems necessary, concerning the work of the Department of Health and the health of the people. The members of said board shall be selected because of their special knowledge of matters relating to the public health, and each shall hold office for a term of seven

years or until his successor is appointed, except that the appointments first made, and appointments thereafter made to fill unexpired terms and terms of members who have held over beyond the periods of their original appointments, shall be made so that not more than one member shall retire during any one fiscal year. No member of any such advisory board shall receive any compensation for his services, but each shall be paid all actual expenses necessarily incurred in the discharge of his duties. And from and after the passage of this Act the advisory board for the Hygienic Laboratory created by section five of an Act entitled "An Act to increase the efficiency and change the name of the United States Marine-Hospital Service," approved July first, nineteen hundred and two, be, and the same hereby is, abolished.

SEC. 8. That the Director of Health may, whenever in his judgment public interests would be promoted by so doing, invite the duly constituted health authorities of all or of any of the States, Territories, the District of Columbia, and insular possessions as to him may seem advisable, each to send one delegate to confer with him or his duly appointed representative or representatives and with each other, at such time and place as he may designate, concerning any particular matter or matters relating to the public health; and it shall be the duty of the Director of Health, upon the written application of the duly constituted health authorities of not less than five States, Territories, the District of Columbia, or insular possessions, stating the particular matter or matters which it is desired to consider, to appoint a time and place, and to call a conference of the health authorities of the States, Territories, the District of Columbia, and insular possessions that united in the request therefor, and personally or through his duly appointed representative or representatives to be present at such conference; but every State, Territory, the District of Columbia, and insular possession shall be notified of every conference, and if practicable be afforded an opportunity of being present and participating in its proceedings. And from and after the passage of this Act annual and other conferences of State and Territorial boards of health, quarantine authorities, and State health officers, provided for by section seven of an Act entitled "An Act to increase the efficiency and change the name of the United States Marine-Hospital Service," approved July first, nineteen hundred and two, be, and the same are hereby, abolished.

SEC. 9. That, except as expressly provided in this Act, nothing herein contained shall be construed as limiting or abrogating any function, right, or duty imposed by law upon any existing bureau, division, or other branch of the government; but such bureaus, divisions, and other branches of the government as are by this Act or by authority thereof transferred to the Department of Health shall continue, under direction of the Director of Health, to have such functions, duties, and rights as they have at the time of such transfer; and in the case of such bureaus, divisions, and other agencies of the government as are transferred in part only, the part not transferred shall continue to have and to exercise all such functions, duties,

A CHANCE FOR STUDENT NURSES

THE BATTLE CREEK SANITARIUM AND HOSPITAL TRAINING SCHOOL FOR NURSES

offers exceptional advantages to those who contemplate taking up the Nurse's profession. A Three-Years'-Course is offered to Women, and a Two-Years' Course to Men. Over two hundred Nurses are employed in the institution.

The demand for Nurses who are trained in the Sanitarium principles and methods is constantly increasing, both in the institution and outside. A good salary awaits those who finish the course.

In addition to the usual subjects taught in hospital training schools, special attention is given to all branches of physiologic therapeutics, including hydrotherapy, radiotherapy, electrotherapy, 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.

For full information address

SANITARIUM - - Battle Creek, Mich.

and rights, except such as specifically relate to the part transferred to the Department of Health, in the same manner and to the same extent as if no such transfer had been made.

SEC. 10. That the Director of Health shall annually submit to Congress a report in writing showing the operations of the Department of Health during the last preceding fiscal year, which report shall give an account of all moneys received and all moneys disbursed on account of such operations. He shall make such other reports from time to time as may be required by the President, or by either House of Congress, and such as are in his judgment necessary or expedient.

SEC. 11. That.....dollars be, and the same are hereby, appropriated to carry into effect the provisions of this Act, out of any money in the treasury not otherwise appropriated.

SEC. 12. That all Acts and parts of Acts contrary to the provisions of this Act or inconsistent therewith be, and the same are hereby, repealed.

SEC. 13. That this Act shall take effect on and after July first, nineteen hundred and twelve.

ARRIVALS

The list of guests who registered at the Battle Creek Sanitarium for the week ending April 16 is as follows: Mrs. N. Lackie, Minn.; W. P. Robinson, Ind.; Chas. Wolohan and son, Mich.; W. H. Teeter, P. I.; Mr. and Mrs. C. C. Brace, N. Y.; Mrs. Reynolds Smith, Miss.; J. H. Struble, Mich.; Wm. J. Cox and Wm. J. Cox, Jr., and W. N.

Cox, Ky.; Mrs. H. B. Graham and child, Neb.; Pike Campbell, Ky.; Mrs. W. W. Digby, Toronto; W. S. Snell, Chicago; Alice Karg, O.; Mr. and Mrs. S. C. Preston, New York City; Frank W. Halig, Cincinnati; S. Carahoot, Calif.; Jno. C. Corland, Toledo; Browne Willis, Chicago; G. M. Hanchett, Ia.; E. C. Thompson, Ky.; H. J. Furer, Chicago; Mrs. E. E. Brown, Neb.; G. S. Barber and wife, Mich.; Helen A. Stevens, Ind.; C. C. Carter, Indianapolis; Mrs. E. O. Wilson, Cleveland; Thomas D. Fox, N. C.; J. O. Parker and wife, Mich.; E. Coons, Niagara Falls; Ethel L. Reed, Mich.; Mary Kettenhofen, Milwaukee; Jos. A. Ford and N. J. Peabody, Chicago; Rev. Wm. E. Geil, Pa.; Mrs. W. J. Rachaio and Mrs. A. O. Sears, Mich.; Mr. and Mrs. P. G. Frazier, Detroit; C. Terhune, Ga.; W. H. Shackelford, Kansas City; Mrs. Frank Miller, Ill.; Miss Francesca Lopez, Mich.; Wm. P. Schuster, Fla.; Miss Conrad, Chicago; F. P. Hillman, Nebraska; Chloe Stauffer and Jennie Stauffer, Ohio; G. H. Steinbeck and Mrs. W. J. Cox, Chicago; Mrs. Chas. Brockett, City; C. D. Johnson, Chicago; C. K. Jewett and Miss Jewett, Mass.; E. M. Mayer, Cincinnati; H. H. Ellsworth and Henry Ellsworth, Chicago; Mr. and Mrs. A. G. Hill and Miss Emily Hill, Wis.; R. P. Thomas, O.; C. E. Miller, Pa.; P. S. Kellogg, M. D., Wyo.; Malcolm McGregor, Detroit; Geo. Mahon, Tenn.; J. V. Bright, Ind.; E. C. Kenning and wife, Ont.; Mrs. E. T. Long and Miss Alice Herold, Mich.; Geo. L. Maltby, N. Y.; Eleanor Oplinger, O.; Mrs. W. Reardon, Mich.; Theo. Fenn, Jr., and J. M. Bommann, Philadelphia; Philip Krug, Cincinnati; Mr. and Mrs. M.

N. Detoe, Mrs. R. C. Pryor, C. H. Benedict and Dr. J. O. Parker, Mich.; I. N. Shepherd, Mich.; Mrs. Edwin Montgomery, Miss.; Mrs. F. Y. Pressly, Miss.; C. D. Johnson, Chicago; Reynolds Smith, Detroit; Wm. A. Brown, Chicago; L. E. Phillips, Okla.; Mrs. F. B. Schultz, Milwaukee; D. B. Tragram and Miss Emma Booker, Ind.; W. A. Berery, Detroit; Mrs. H. C. Landon and Miss S. Landon, O.; Randy Lee, Minn.; Mrs. M. E. Jones, O.; F. F. Tucker, China; P. M. Champlain, Mich.; C. P. Hanna, Mo.; Mrs. W. L. Haag, Mich.; M. H. Lane, Kalamazoo; Miss Mendor, Tex.; Mrs. E. Rice and Mrs. E. Trellecock, Mich.; Jno. C. Corland, Toledo; Chas. Anderson, Ill.; Mrs. J. F. Switzen, Detroit; J. A. Parker, Ill.; Lola Lamb, Kalamazoo; J. O. Linder, Ill.; G. W. Howard, Ont.

News and Personals

Rev. W. H. Teter, who has been serving under the Methodist Mission Board in Manila, P. I., is a guest at the Sanitarium.

Miss Florence Stout, a graduate nurse of the Sanitarium Training School, has returned with a patient, Mrs. Frank Broadus, of Centerville, Ind., who will take a course of treatment in the Sanitarium.

Dr. Preston S. Kellogg and Mrs. Kellogg have spent a few days with friends at the Sanitarium. Doctor Kellogg is a brother of Dr. J. H. Kellogg, and is attached to the United States Army as surgeon, stationed in Wyoming.

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.

Miss Ella Thompson paid a brief visit to the Sanitarium last week. She reports excellent success in her work of demonstrating in the large department stores of Chicago. She now has an engagement to speak before the women's clubs of Milwaukee.

After an absence of some weeks, during which he was caring for a relative who was ill, Dr. H. S. Kelsey has resumed duties on the Sanitarium staff. Doctor Kelsey is to act as "outside physician," and has already entered upon his work, which is a wide and active one.

The Mission Study class met in the fifth-floor parlor on Sabbath afternoon at 3 o'clock. The new study to be taken up is "The Uplift of China," and the class was most fortunate in having the author of their text-book, Dr. Arthur H. Smith, give a most comprehensive introductory lecture to the study of this most important country, which is destined to play such an important part in the future history of the world.

Special Easter services were held in the chapel on Sabbath morning. The floral decorations were beautiful and the music was especially fine. Miss Mary Ross contributed a soprano solo and Mr. Irving Steinel gave a baritone selection. Miss Farquharson contributed a beautiful violin solo and a particularly good Easter anthem was sung by the choir. There was a brief address by the pastor, "The Significance of the Resurrection."

In the list of new arrivals we notice Mr. Geo. M. Hanchett, a banker of Fort Madison, Ia.; Mr. H. Ellsworth, of Chicago, who is associated with his father in Board of Trade business; Mr. Avery, an automobile dealer of Columbus, Ohio; Mr. Pike Campbell, proprietor of the Fifth Avenue Hotel of Louisville, Ky.; Mr. W. J. Cox, Sr., a prominent lawyer of Madisonville, Ky., who with his son, W. J. Cox, Jr., is taking a course of treatment at the Sanitarium.

On Sabbath afternoon Mrs. Arthur H. Smith spoke with considerable power to a deeply interested audience in the Sanitarium parlor on the subject of "Medical Missions in the Orient." Mrs. Smith had considerable striking data from different countries, proving the great need of medical missionaries, and spoke with much earnestness of the wonderful success that had attended the work of medical missionaries in China, in which country she has labored for thirty years.

Dr. F. F. Tucker, of Pang Chuang, China, made a brief visit at the Sanitarium last week en route for Boston, where he will be one of the chief speakers at the great exhibition, "The World in Boston," which is to be held there during the next four weeks.

The Kalamazoo College Glee and Mandolin clubs will give an entertainment in the gymnasium on Saturday evening, April 22. The clubs have toured the State for the past five years and have appeared in all the larger cities. There will be music that everybody

likes, and college spirit and fun at its best. The clubs compose about twenty-five members.

It is proposed to hold a Bible Students' Convention in the Sanitarium chapel, beginning on Friday evening, April 28, and continuing over the two following days. The leading men will be Harrison S. Elliott and J. W. Pontius, of New York, and Mr. Johnson of Detroit. The two former are national secretaries, and Mr. Johnson State secretary, for Bible study in the Y. M. C. A. An excellent program has been devised, and the occasion promises to be both interesting and profitable.

The Christian Endeavor meeting on Friday evening was led by the Misses Silverthorne and Devine. It was a special Easter service. The chapel was beautifully decorated and several Endeavorers took part in a most interesting service. Miss Stump sang a solo, and Miss Babcock and Miss Youngberg assisted in the musical selections. The service was followed by a large committee meeting, in which plans were discussed for the future enlargement and efficiency of the work. The subject for next week is, "Sabbath Benefits."

On Saturday evening, Dr. and Mrs. Wm. W. Hastings gave a reception to the students and faculty of the Normal School of Physical Education at their home in Ridgemoor. A most enjoyable evening was spent in social intercourse, guessing contests, and music, several fine selections being given by members of the school and their friends. The gathering was especially favored by the presence of Mr. Gazman, first violinist of the New York Symphony Orchestra, who is visiting students of the Normal School. Mr. Gazman rendered several violin selections which were greatly appreciated by all.

Among former patients of the Sanitarium we notice Mrs. W. Reardon, of Midland, Mich.; Mr. W. B. Robinson, of Tarrytown, New York, a member of the Robinson Manufacturing Concern in Richmond, Ind.; Dr. Chas. C. Brace, president of the Denver Chemical Manufacturing Co., whose most noted product is antiplogistine; Mr. J. H. Strubler, a retired merchant of Shepard, Mich.; H. J. Terbur, of the Palmer House, Chicago; O. C. Somerville, a prominent merchant of Midland, Mich.; Mr. P. C. Frazier, a well-known business man of Detroit; Judge S. S. Lazier, of Belleville, Ont.; Geo. M. Sherwood, a well-known agriculturist of Markesan, Wis.

A luncheon was served by the students of the Domestic Science School on Tuesday to a small invited party, of whom Doctor Kellogg was the guest of honor. The two students upon whom fell the responsibility of the occasion were Mrs. Plum and Miss Hostetter. The table appointments were neat and dainty, and the place cards bore appropriate Easter designs. The color schemes were green and gold, the flowers being daffodils. The menu had been carefully prepared and was well balanced with regard to the proportions of calories, this being one of the

important features of the dietetic training of the school. Both the viands and table service were excellent and elicited warm commendations from their guest of honor.

Local option was again given to Calhoun county this spring and the vote was so very close that it is as yet undecided whether the "drys" or the "wets" prevailed. The Board of Supervisors has decided the election in favor of temperance, but legal questions have arisen and the matter is now before the courts, where it will have to be decided; so both sides are in suspense. The saloon men are very eager to resume their traffic in the souls and bodies of men and boys; but the friends of reform are confident of success.

On the evening of the 18th the graduating class of nurses to the number of thirty or more executed a very fine surprise party upon the home of their instructor in Bible. The class was chaperoned by Mrs. Foy and Miss Youngberg, and the evening was most pleasantly and profitably spent in social pastimes and music. Misses Aplin and Way sang some beautiful selections, and several popular songs were rendered by the whole company in concert. Miss Isabel Mackeracher, a member of the class, who is now making a good recovery from a protracted illness, was present; and Miss M. A. Forbes, of Rhinebeck on the Hudson, who is also a recovered patient of the Sanitarium, and was about to leave for her home, was "guest of honor."

Arrangements are nearing completion by which the Battle Creek Sanitarium will lease the building known as the "Sanatorium," and located on grounds adjoining those of the Sanitarium. It has become a very serious problem with the managers to care for the people who wish to come to the institution to obtain its help in sickness. This is especially so in the summer season, when for several years past it has been necessary to hold the people in check. But with the addition of this splendid building and its fine equipment, there will be no difficulty on that score. It is expected that the "Annex," as it will be called, will be opened in June. A special number of the BATTLE CREEK IDEA will doubtless be issued soon, giving full particulars of this great enlargement of the scope and capacity of the institution.

OVERHEARD IN THE LOBBY

"GOOD-BYE! I'm leaving for Europe,--going over to the coronation! But, do you know, I am more than half sorry to leave this place. It is different from any other place I've ever seen. Yes, there's quite a home atmosphere here, and I shall come back again."

"Yes, I am going home to-morrow, and I do feel so much better. Why, I feel better than I have for ten years! and we are going to carry out this diet business at home. My wife has been taking lessons in the cooking school, and we shall live just like you do here."

THE BATTLE CREEK IDEA

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A Natural Stimulant

Dr. W. H. Riley Tells His Patients of the Benefits to be Derived from a Cold Bath—When and How to Take It

FIRST of all, let me say that many of the remedies that are used at the Sanitarium are

TAKEN FROM THE QUESTION BOX

Sundry Queries Propounded by Patients, with Ready Responses by the Sanitarium Superintendent

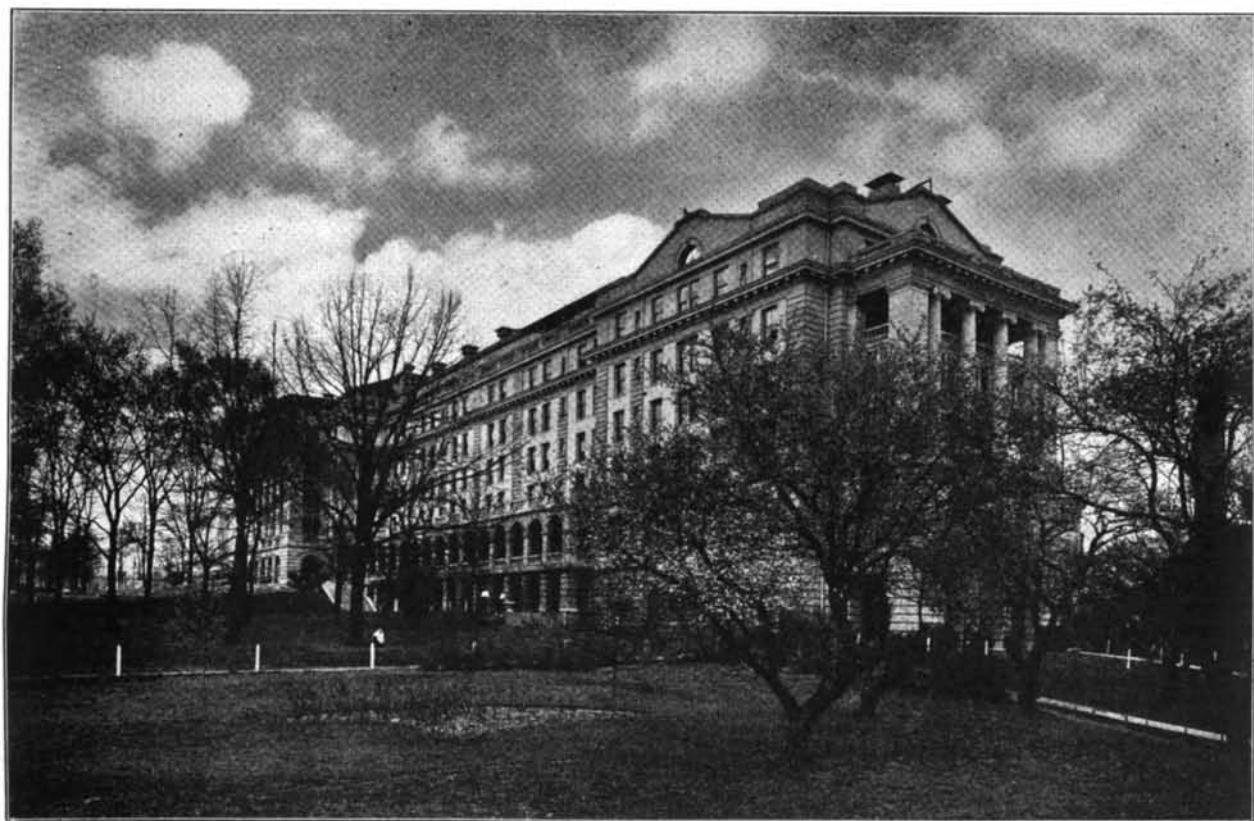
QUESTION. Of aloes, Turkish rhubarb, or senna, which is the best laxative?

THE BENEFITS OF AN ANTITOXIC DIET

As Given in a Lecture at the Sanitarium Parlor by J. H. Kellogg, M. D.

GRAPE JUICE

THE beautiful thing about fruit juices is that they furnish us food all ready for as-



SANITARIUM MAIN BUILDING—FROM THE SOUTHWEST

dependent for their effects upon the natural forces within us. And these depend for stimulation upon the forces outside of ourselves. In the body there are myriads of nerves that end in the skin. When one takes

(Continued on page five)

ANSWER. That is a good deal like asking me, Of safe-breakers, pickpockets, and highway robbers, which is the most expert thief? In that case I should say they are all villains, every one of them; and so these drugs

(Continued on page four)

simulation. With the exception of the water in the grape juice, there is nothing there but food, and it has the advantage over almost every other food to be found, that it is perfectly digested, ready to be absorbed; and that is why it is so very refreshing. The

sugar of grapes, which is levulose and dextrose, represents sugar which is completely digested and ready to be taken into the body; and if it were separated from the grape juice and injected under the skin right into the veins, it would be at once assimilated.

I Am Always Trying to Persuade You

all not to eat beefsteak, but if any of you insist upon eating it, you should always take a glass of grape juice afterward as an antidote, and there are two or three reasons why you should do it. In the first place, beefsteak is going to decay if you do not put in some sort of preservative. The acids of grape juice are preservative and prevent putrefaction to some degree. If you put a pound of beefsteak into a gallon of grape juice, it will not decay. You can keep fresh meat indefinitely in grape juice; it will not decay so long as the grape juice keeps fresh. The grape juice would need to be renewed occa-

discovered, it was found that milk was one of the very best culture mediums for them.

In those days, we used to have a good deal of trouble with the bowels. They were enormously swollen in typhoid fever. Tympanitis was one of the usual symptoms. We began to experiment, using grape juice instead of milk in fever cases, and there was a very great advantage in it, because milk is chiefly a nitrogenous food, and the protein decays, while grape juice contains nothing that can decay; in fact, it prevents decay, and at the same time contains food which is already digested, while milk contains nothing which does not require digestion. The grapes have been ripened or cooked in the sun, and not only that, but they have been digested by the actinic rays of the sun; so grapes are a pre-eminently valuable food.

There is another element in grape juice I have not mentioned, and that is the grape acid. It has a real food value. The people who

child fed on sterilized milk and the juice of an orange, lemon, or apple, every day, thrives. We now know that sailors suffer from scurvy because they live wholly on cooked foods. Fresh, raw food substances will prevent scurvy and cure it.

I must tell you how the body deals with

Toxic Food Substances.

The body is prepared to deal with both toxic and antitoxic food substances. The mucous membrane of the intestine is a filter. It is a far more perfect filter than even the Pasteur filter, because it has the power to select out of the substances which are presented to it those things which are wholesome, and allows them to pass through; and the unwholesome things it rejects and passes along. It is like a watchman at your door who lets the friends in and keeps the enemies out.

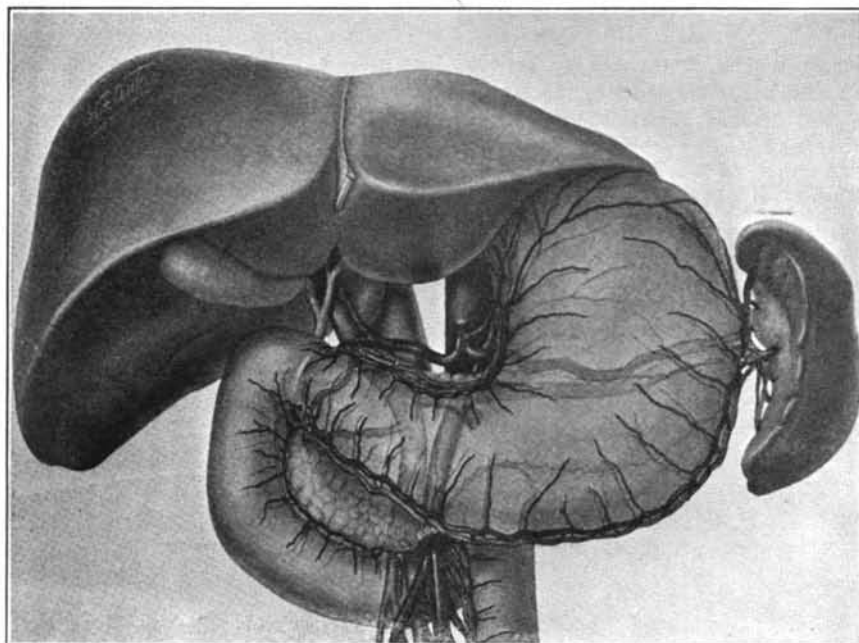
So the mucous membrane is a living filter that has judgment and discretion, and exercises in a most skilful way an expert discretion in relation to the character of the substances which are presented in solution for absorption. It is a thing that preserves our lives. The contents of the intestine of the person living upon the ordinary diet is in a state of advanced decomposition. There is enough poison in the colon of the average man or woman to kill him in half an hour if it were introduced into the blood, but the mucous membrane does not allow it to get in. However, there are certain poisons that do pass in there, for sometimes the quantity of poisons is so very great that the filter can not keep them all out, and some of them find their way in, and then they come in contact with the liver.

The poisons that find their way through the intestinal walls go into the blood and are carried to the liver, where the blood is inspected by cells that lie right along beside the blood-vessels, and the poisons are destroyed. They are absolutely annihilated; but when the poisons come in such great quantities that they can not all be dealt with, when the blood is saturated with them, the cells are themselves inoculated and paralyzed by the enormous quantities of poisons with which they are obliged to deal, and after a while they undergo degeneracy, and later particles of fat are deposited in the cells so they are permanently disabled; and that liver is crippled.

I suspect that

Most People Have Crippled Livers,

not so badly crippled but what they can do a certain amount of work, but so badly damaged that their owners can not do the things they once did. The liver will stand an enormous amount of abuse. There isn't any organ in the body that will stand so much abuse as the liver will, because it has marvelous vitality. A German investigator some time ago took a rabbit and cut off half its liver. A few months afterward he found the half had grown on again, and the liver was just as good as ever. Then he cut off the other half, and in a few months the other half had grown on; so the rabbit had a new liver and was perfectly happy over it. That is what the most of people need, and I am glad to tell you it is possible for livers to be renewed to a considerable degree if they are



STOMACH, LIVER, GALL-BLADDER AND KIDNEY

sionally. In our cooking school we have a beefsteak that has been in yogurt buttermilk for almost three years, and it is still intact.

Another advantage of grape juice is that it introduces salts which are of great importance to the body. The reason why it is so very valuable to the fever patient is that it introduces food in a form in which it is ready to be immediately assimilated. One who has a fever has lost his power to digest, and makes no gastric juice; his mouth is dry, and he makes no saliva, makes no pancreatic juice; he has no digestive fluids. Put food into his stomach, and if he is in a very low state, unless that food is all ready for assimilation, it simply lies there and decays, and the patient suffers from fermentation.

The Old Way Was to Feed Fever Patients with Milk.

I rebelled against that about twenty-five years ago, because when typhoid fever germs were

have chronic catarrh of the stomach to such a degree that fruit acids irritate the stomach (and there are a few such cases) and persons who suffer from hyperacidity of the stomach, who have a burning irritation, after taking fruit acids, must sometimes avoid grape juice for a time. But by discarding meats and adopting an antitoxic diet, the hyperacidity will disappear and the sore stomach will heal up; then grape juice, especially if diluted with a little water, will come to be a very welcome food indeed.

Grape Juice is Not an Absolute Substitute

for grapes, for the reason that the grape in its natural state contains enzymes, certain subtle substances which are of very great value to the body. Sometimes persons are almost miraculously lifted up from the very brink of the grave by the use of these raw fruit juices of various sorts. A child, for instance, fed on sterilized milk gets scurvy, and rickets, from malnutrition. The same

given a fair chance; but under continued misuse the poor liver will get discouraged and cease to reproduce itself.

There Are Also the Pancreas

and the spleen that are engaged in this poison-destroying work. These are absolutely essential to the maintenance of the vigor and efficiency of the body. There is a little gland in the neck, called the thyroid, that people used to think was put there chiefly to make business for doctors and to make trouble for the patient. It is the gland that enlarges and becomes what is known as goiter, when it is enlarged. This gland has been found to be an antitoxic gland and to have a wonderfully important function. Its purpose is to test the blood, to pour into it the necessary substances to destroy those poisons that have escaped from the liver and other toxic bodies.

There is a very small gland in the brain called a pituitary body. This pituitary body is half nose and half gland, if you please. It tests the blood, samples it, examines it, and if poisons are present they stimulate the gland to secrete a very subtle substance which when it is present in the blood and reaches the thyroid gland, causes it to pour out this secretion called thyroïdin. This secretion is poured into the blood, circulates in the kidneys, causes the suprarenal capsules of the kidneys to produce adrenalin, an antitoxic substance that destroys the poisons in the blood and in all the different organs—the intestine, liver, pancreas, and the spleen.

When these organs, the thyroid gland and the suprarenal capsules and the pituitary body, do their work, the poisons are destroyed and the blood is kept clean and the kidneys have only to eliminate the substances which are not particularly poisonous, such as are produced by the oxidizing process. But when large quantities of these poisons are present, the liver becomes enlarged, congested, and the kidneys become contracted.

These, then, are some of the provisions made for disposing of the poisons that constantly assail our lives.

THE DEMAND FOR PURE MILK

RECENTLY Dr. J. H. Kellogg was called to Lansing by the State Food and Dairy Commission to speak before the legislative committee in behalf of a proposed bill for the establishment of a Pure Milk Commission. We give herewith an abstract of his remarks:

Seven thousand babies die in the State of Michigan every year who are less than a year old. This means a financial loss to the State of not less than \$35,000,000, to say nothing of the trouble and distress occasioned by these untimely deaths. Three-quarters of these deaths are due to unclean cow's milk. Bunge, one of the world's greatest authorities on food and dietetics, has shown that the mortality of bottle-fed babies is seven times as great as that of babies who are nursed by mothers, and it is cow's milk that does the mischief. Probably three-quarters of all the children less than one year of age who die in the State of Michigan annually, numbering not less than 5,000, owe their death to impure milk.

Barnyard Germs a Source of Death

It is not simply the typhoid fever germs and the germs of tuberculosis which do the mischief. Far more important as a cause of death are the ordinary germs of putrefaction which are introduced into the milk by the stable and barnyard filth which gets into it and the contamination from unclean vessels. These putrefactive germs set up putrefaction in the intestine of the infant, and cause cholera infantum, cholera morbus, diarrhea, various wasting diseases, scurvy, rickets, malnutrition. The suffering from this cause is beyond estimate. Ordinary cow's milk is perhaps the filthiest thing that ever appears upon the table. Milk not infrequently contains as many as fifty million germs to the teaspoonful. Ordinary milk contains four or five million germs to every teaspoonful. The number is sometimes enormously greater.

The mischief does not stop with infancy. Older children are made sick by impure milk, and the acute bowel troubles and chronic in-

bacillus, which is found in vast numbers in impure milk, and may even be present in butter prepared from impure milk. The proportion of germs in butter and cream is even larger than in milk. It is possible, then, that the great increase of cancer, as well as the increase of chronic diseases, which destroy unnecessarily three or four hundred thousand people in the United States every year, is due to impure milk.

That milk may be made clean is proven by the fact that at the present time there are in the United States forty or fifty volunteer milk commissions consisting of medical men who have associated themselves together for the purpose of securing a pure milk supply for their patients and others who desire to avail themselves of it. Certified milk is not permitted to contain more than 10,000 germs to the cubic centimeter, or about 40,000 to the teaspoonful, which is 100 to 1,000 times less than the number of germs found in ordinary milk, and the best grades of certified milk contain less than one-tenth as many germs as this.



IN THE MILK ROOM OF A MODEL DAIRY

testinal putrefactions set up in early childhood generally continue through life and result in Bright's disease, tuberculosis, chronic rheumatism, and a great variety of chronic maladies. Chronic disease has doubled its mortality within thirty years. Bright's disease has more than doubled. Disease of the arteries has increased 300 per cent in the last ten years. Cancer has increased 500 per cent in sixty years. In the year 1909 one-seventh of all the women who died in the United States between the ages of forty and sixty years died of cancer.

Recent researches show that

Putrefaction of Animal Substances Produces Poisons

which are capable of inducing cancer. Doctor Ross, of Liverpool, produced cancer by the application of cholin, a putrefactive poison, to a raw surface. Cholin, as Doctor Ross has pointed out, is produced by the hay

The State Ought to Provide Clean Milk

for its citizens, but since it does not, the matter must be looked after by private enterprise. In the State of Michigan at the present time, with the exception of a few large cities, there is practically no milk inspection. The appropriation of the Dairy and Food Department is altogether inadequate to permit a thoroughgoing inspection if it were undertaken, and the health laws upon the statute books do not require inspection. The board of aldermen or the council of any city or village may appoint a milk inspector, but the law does not require such an appointment. We need laws requiring rigorous inspection of milk supplies, so that Michigan shall no longer sustain the loss of one-fifth of its baby crop, the most important of all its productions, during the first year of life, from a cause so easily remedied.

The present bill before the legislature to
(Continued on page five)

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A SKETCH OF BROOK FARM

It was about sixty-five years ago that some wise people of New England undertook to reform the world, and they thought the best way to do this was to set a good example of rational living. They thought that the only way to make an impression upon the world would be to draw apart from the rest of the world, and gather those who were of like mind into a little colony by themselves, and establish a little hygienic haven where people would be invited to come and reform, and learn to live naturally. They selected a place called Brook Farm, and in 1841 George Ripley, a clergyman, very eloquent and very learned, gathered together there his friends to the number of one hundred and forty, though the number varied.

There were many distinguished people there. Among them was Bronson Alcott, a Concord philosopher, one of the founders of what is known as New England Transcendentalism. These people believed in living naturally, in having no caste; all participated in the industries of the community. And the distinguished men gathered there; really the most learned people of the time, could be seen washing dishes, milking cows, and doing chores about the house, in the most common fashion possible. The colony was housed in several buildings; but the enterprise ended in an unfortunate fire which burned their main buildings. There was no insurance, and they were not able to rebuild.

One of this group, somewhat erratic, yet a remarkable genius, was Thoreau, and he built a cottage for the purpose of finding out, as he said, what are the real essentials of life. He bought the lumber for five dollars from an Irishman who had a shanty beside the railroad; and he carried most of the lumber on his back a mile and a half, a few boards at a time, and built the cottage himself. He had in this building a room fifteen by twenty feet, an ample fireplace, a cupboard, and an attic with a trap-door in it, two windows, and a front door; and he felt he had everything that a man could want in a cottage. He built a little shed on behind, and he owned a little farm of about three acres, which he found was much larger than he needed. He tried to cultivate it all the first year, but did not succeed in getting it hoed over once; and after that he planted about half an acre, and found he could raise on half an acre all the corn, beans, and potatoes he could eat. It cost him an average of twenty-seven cents a week for the food he ate during eight months' time; and he ate all he wanted. He did not lose in weight

or in strength, he enjoyed life immensely. He had a great many visitors—squirrels and chipmunks, mostly. He was about a mile and a half away from any body else, and he meditated and mused, and wrote out some of his musings, which may be found in his beautiful little book, "Walden,"—bristling with brilliant ideas and apt criticisms of the ways of modern life.

Hawthorne belonged to the colony for a time. He also helped about the domestic work, and it was a very novel experience for him. And there was Charles A. Dana, the founder and editor of the *New York Sun*; and Wendell Phillips, the great American orator. Bronson Alcott lectured to our patients several times while here, and he told our people he had not eaten meat for fifty years. The objections that most of these Brook farmers had to the use of meat were not scientific objections. They were purely esthetic and social. They said, "The eating of meat is extravagant; we must then have a larger farm on which to raise animals; we must do a great deal more hard work if we raise animals than if we subsist on the natural products of the earth and take them at first hand." And there can be no doubt that is true.

The ideas which prompted these reformers were sound and practical, but their plans were defective from a business standpoint. The principles appealed to them, but the mere adoption of proper esthetic ideas is not a sufficient basis for a successful community of people to grow and subsist upon; so, as a matter of course, the end was bound to come, as it surely did come, after a few short years. But the principles still live, and still appeal to thoughtful people.

QUESTION BOX

(Continued from page one)

are none of them to be recommended. They will all act, as Dr. Oliver Wendell Holmes said, "not wisely, but too well." They have this disadvantage, all of them, that while they act effectively for a time, their effectiveness diminishes more and more until by and by they become entirely ineffective. That is true of nearly all drug laxatives. I remember very well an old gentleman who came here a good many years ago, and I found he had a most obstinate intestinal inactivity, and began to ask him what he had been taking. Mineral water? "Oh, mineral waters are nothing to me." After-dinner pills? "Pills don't have any effect upon me. Why, I have taken for years half a pound of salts, but I have gotten now to such a state that a pound of salts has no effect upon me." "How in the world did you ever get in this state?" "Well, Doctor, my mother was a very tidy woman, and she thought we ought to be brought up right, so every Saturday morning she brought us all around and gave every member of the family a dose of salts, regularly." Well, now, that was not a bad idea if it could only be done in an effective and harmless way. It was a capital idea to have a good housecleaning at least once a week, but it ought to have been done in some better way. He had been taking salts all his life, and when he got to be seventy years old, his

bowels were almost paralyzed by this continual irritation to which they had been subjected. All of these laxatives are to be condemned, every one of them, especially those old drugs that have been used for so long a time and the injury from which has been well demonstrated.

Q. Tell us of the good effects of gum chewing.

A. There is only one possible condition under which I could recommend gum chewing, and that is, if one has utterly neglected to chew his dinner, he might retire into some secluded place and do penance by chewing gum.

Q. Is bromo-seltzer injurious?

A. Most assuredly it is. It is not a thing to be recommended. All these popular nostrums are not to be commended. There might be some condition under which it would be better to use a drug, even a nostrum, than to do nothing. But there is always something better; there is always a better way.

Q. Tell us something of the good effects of raw food.

A. The natural diet of man is, of course, uncooked. Cookery is a comparatively modern invention, so far as the human race is concerned. Our nearest relatives, the anthropoid apes, the orang, chimpanzee, and gorilla, take their food just as it comes from the hand of nature. We have become accustomed to a cooked dietary, and cooking enables us to eat some things which we could not eat and thrive upon without cookery—for instance, coarse vegetables, potatoes, carrots, beets, parsnips, and things of that sort. The same is true of dried grains; we get very little nourishment out of wheat, rye, and barley and things of that sort unless we cook them. But there are other foods like fruits, nuts, and milk which require no cooking. Milk is a food prepared for our sustenance at an early period of life, but nuts, fruits, tender leaves and tender parts of plants, like the inside of a head of cabbage and tender lettuce leaves, are perfectly digestible and are our natural diet. They must be well chewed, and they are very excellent to give bulk to food, also to furnish to the body subtle substances which we do not exactly understand all about, but which are contained in the juices of these uncooked foods, and are known to be essential to the welfare of the body.

Q. Are carbohydrates fat-forming? or do they simply produce heat?

A. Carbohydrates are converted into fat.

Q. What diet would you advise for a person troubled with bad breath?

A. A clean diet, food that can not decay. Do not eat anything that will decay outside the body, and then it will not decay inside the body.

Q. Could one get two meals a day in the dining-room six hours apart?

A. Yes, breakfast is served in the morning until 7:40, and dinner is served till three o'clock; so if anybody wishes to ad-

just his meals to the two-meal plan, he can readily do so.

Q. Is it advisable to have water in the stomach when commencing a meal?

A. Yes, water should be taken half an hour before the meal.

Q. Please say a word upon the subject of bending about and exercising directly after meals. I always understood it was bad, and that people should rest ten minutes or so after eating.

A. It depends upon the size of the meal. If you properly chew the food and eat a moderate meal, there is no reason why you should not do any ordinary exercise right away after. If you have a feeble or a sore stomach, and feel heaviness, weight and distress, then it is well to lie down for half an hour after the meal. But these heavy feelings usually disappear with light exercises.

Q. What is the cause of cankers in the mouth, and what is the cure?

A. It means low resistance, germs growing in the mouth.

Q. Can indigestion and inactivity of the bowels be cured?

A. These conditions can be cured and they must be cured, because they are deadly in their consequences if they are not cured.

THE DEMAND FOR PURE MILK

(Continued from page three)

provide for certified milk commissions and to protect the business of certified milk from fraudulent use is a most excellent measure and will receive the support of every physician in the State and of every intelligent and public-spirited citizen.

A NATURAL STIMULANT

(Continued from page one)

a cold bath, the nerves are stimulated because the sudden impact of cold is irritating to them. Various impressions are impinging upon our nerves all the time. And this is the fundamental principle of life. We can not live without them, any more than we can live without food or water. These, of course, are very essential; take away the stimulant of these forces, and we would not live very long.

The life of a man who is kept in a prison cell, who is taken away from the sunlight and other external forces, is greatly shortened. This principle is very well illustrated in a case reported by a German physician, Doctor Strumpel. He had a lad fourteen years old, and this boy could see with only one eye and hear with one ear. And when he plugged up his good ear with cotton,

The Boy Soon Went to Sleep,

because there was not enough stimulus acting upon his ears to keep him awake. And one reason why we go to sleep is because the forces outside of ours are reduced to a minimum at night, and we go to sleep more readily than in the daytime. This is a fundamental principle and it applies to all the different life processes; and we make use of it

here at the Sanitarium. The forces outside of our bodies keep the machinery of our bodies in motion, keep the heart beating, keep the blood circulating, keep us breathing, keep the digestive process going on. Suppose we stimulate the body a little with cold water, or hot water, or massage, the blood will move more rapidly, and all the organs become more active under the greater stimulation. We can not live without a stimulus; it is impossible. The body must be stimulated. And this stimulus comes naturally through the relation between us and the outside world.

When we take a cold bath it is

Not the Water that Does Us Good.

Baths are useful for cleansing purposes, of course, and sometimes are taken for that; but usually people do not come to the Sanitarium for the purpose of getting clean. The thing that does the good is the cold or the heat that is in the water. We use hot and cold water as a means for applying heat and cold to the body. We have also a cold air bath where we apply cold air to the body, and it gives very much the same effect. It is the cold and the heat that stimulate the

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 " "

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nerves, and there are millions of nerve currents that travel up to the brain through the spinal cord. There is a center to control breathing, another for talking, and still others controlling the stomach, kidneys and blood-vessels. Every organ in the body and every function is under the control of the nerves.

What Does the Cold Bath Do?

It increases the force of the heart-beat. I am speaking now of a *short* cold bath, a bath lasting not longer than two minutes, in some cases perhaps about a minute. That is the kind of a bath I am speaking about now. Such a bath increases the force of the heart. It increases blood-pressure. It improves the circulation. It drives the blood to the skin, and takes it from the internal organs by a reaction. When a man's blood is tested before he takes a cold bath and after, it will be found that the blood-cells have increased after the bath, because the blood is sent from the internal organs to the outside of the body. And this is why there seem to be more blood-cells immediately after a cold bath than before.

If a man takes a cold bath every day for a week or two, and we count his blood-cells before the period, and then count them after he has been taking the cold bath, he will be

found to have absolutely more blood-cells than before, because the cold water stimulates the blood-making organs. He has more hemoglobin, or more of the red coloring matter in his blood. Further, it will increase the respiratory functions of the body. It makes a man breathe deeper. More oxygen gets into the blood. Some years ago I increased a man's chest expansion over two inches by the use of the cold bath, with no other means.

And a very important thing which it does is that it increases the circulation of blood through the lungs. There are a lot of people whose lungs are poorly ventilated. They do not get air down into their lungs. They do not breathe right, and the blood is stagnant in the lungs. One of the best things in the world to get that blood circulating is the cold bath. One reason why people have consumption is because the circulation through the lungs is not what it should be. The very best way in the world to make the body produce more heat is taking a cold bath. The reason the body makes more heat is because heat is extracted from the body by the cold water, and the body gets to work to make more heat, and so oxidation is increased. And, by the way, one of the very best remedies for colds is the cold morning bath. The reason people take cold is because they react to atmospheric changes, and a cold bath is

one of the best things to prevent one from taking cold.

A Healthy Man Does Not Take Cold.

Another thing a cold bath does, is to increase the appetite. It also increases the production of hydrochloric acid in the stomach. A very important treatment for people who do not have hydrochloric acid enough is frequently to take a cold bath.

A cold bath increases the motility of the stomach, and the stomach empties itself better. There are lots of people whose stomachs do not empty themselves as they should, and the cold bath will induce that. A cold bath relieves constipation; it increases the muscular contraction of the stomach and the intestines; increases the secretion from the kidneys; it increases the output of waste matter; increases the sensitiveness of the nerves. And, in fact, there is not an organ in the body the function of which can not be stimulated by the cold bath.

There are a few things with reference to the use of the cold bath which we should consider. You can take a cold bath in a great many different ways. You can have a cold hand-rub, a cold-mitten friction, a wet-towel rub, a shower bath, or a full bath. The method to be employed depends upon the condition of the man. A vigorous, strong man will take stronger treatment than a feeble patient.

The effect of the cold bath will depend upon several things. First, it will depend upon the temperature of the water. The colder the water, the greater the effect, providing the patient is able to react to it. Some men are able to react well, and some men are not. And if you give two men the same amount of cold, it may do one man good, and may do the other man harm. It also depends upon the amount of surface that you stimulate. In one case you stimulate a lot of nerves and send a whole multitude of nerve impulses to the brain; and in the other you only stimulate a few nerves and send a few impressions to the brain. The larger the surface, the greater the effect. It depends upon the part to which you apply it.

The rule is that every organ in the body is represented in the skin over that organ; for instance, the liver is represented by the skin over the liver, and you can stimulate the liver by stimulating the skin over it. That does not mean that the nerves run from there to the liver direct, but the nerve runs from here to the spinal cord, and that nerve comes back to the liver from the spinal cord, and you get that reflex effect.

Then, further, much depends upon the time that the application is made. To get the tonic effect of the cold, the application should be short. If a sedative effect is desired, take a prolonged application. I am not recommending prolonged applications of cold; they are depressing, and do not do any good, unless you want to reduce a fever. Then, further, it depends upon the mechanical forces with which the water is applied. The mechanical impact of the water upon the skin has an effect as well as the water.

There are a few

General Rules to be Followed

in taking the cold bath. One should never take a cold bath when tired. And the reason

A CHANCE FOR STUDENT NURSES

THE BATTLE CREEK SANITARIUM AND HOSPITAL TRAINING SCHOOL FOR NURSES

offers exceptional advantages to those who contemplate taking up the Nurse's profession. A Three-Years'-Course is offered to Women, and a Two-Years' Course to Men. Over two hundred Nurses are employed in the institution.

The demand for Nurses who are trained in the Sanitarium principles and methods is constantly increasing, both in the institution and outside. A good salary awaits those who finish the course.

In addition to the usual subjects taught in hospital training schools, special attention is given to all branches of physiologic therapeutics, including hydrotherapy, radiotherapy, electrotherapy, 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.

For full information address

SANITARIUM

Battle Creek, Mich.

is because in order to stimulate the body with cold the body has to react, and when it is already tired it can not react so well. A very good time to take a cold bath is in the morning, after a good night's rest, when the body is capable of reacting, and when the body is warm; that is the best time. Never take a cold bath when the body is cold. Sometimes a warm bath is given before the cold bath. The purpose is to get the body warm so it will react better to the cold. Sometimes we give alternate hot and cold, to get the stimulation from the heat as well as the cold.

It is not a good plan to take a cold bath after a hearty meal; after a light meal it does not make so much difference. If in the morning, on arising, one takes a cold bath when the body is warm, it has a very excellent tonic effect; it is the best tonic I know of, and it is a protection against taking cold, because it keeps the body toned up. A man who is in his office day after day and perhaps can not get time to take exercise, should take a cold bath every morning; it will take the place, to quite an extent, of the exercise which he ought to take.

ARRIVALS

THE list of arrivals at the Battle Creek Sanitarium for the week ending April 23 is as follows: Chas. Wolohan, Irlene Austin and C. D. Warner, Mich.; Jesse Mack, Detroit; S. H. Alban and wife, Dr. A. D. Daniels and B. R. Lewis, Wis.; Mrs. Henry Wilkins, Mich.; Mrs. Anna Rainey, O.; Mr. and

Mrs. Geo. H. Upton, Mass.; Mrs. C. L. Gilhoun, La.; Miss Ada James and Mr. E. S. Bernard, O.; Dr. W. H. Ambrose, John Morrow, F. E. Avery, O.; G. C. Towdery, A. C. McMillan and L. B. Skrat, Ala.; Nelson Williams and wife, O.; E. S. McCandler and wife, Ga.; Dorothy Rickett, Ill.; Mrs. J. Stark and Miss K. Wickham, Minn.; J. W. Hutchinson, Ind.; Chas. F. Bezanson and Fred Tuttle, N. B.; J. W. Eff, O.; M. O. Straight and C. W. Parsons, Detroit; W. D. Smith, Mich.; Mrs. Edwin W. Bishop, Grand Rapids; Foster Carter and wife, La.; Frank Crise, Pa.; F. F. Burdick, Chicago; Geo. Mahon, Tenn.; Margaret Oliver, N. Y.; W. H. Steiner, wife and boy, O.; Jesse A. Baldwin, Ill.; Helen M. Redner, Mich.; W. F. Pitcher, Ill.; Jas. C. Davis and wife, Des Moines; Mrs. E. E. Trandy, Ind.; Jesse Marriott, China; H. E. Carter, Detroit; Elizabeth Barnhart, Mich.; F. W. Karg, O.; S. Geo. Elkins, Canada; Martha Tabor and Mrs. Geo. T. Hampton, Mich.; H. P. Wolberg, Mo.; Earl A. Anderson, Ia.; John Escheltach and wife, Mich.; G. N. Frazier and G. M. Frazier, O.; Mrs. M. Goether, Fla.; Wm. Burtless, Mich.; Mrs. Henry McDonald and J. A. McDonald, Ia.; Frank S. Carr and Sarah H. Carr, Me.; F. C. Sanborn, M. D., Vt.; J. W. Burnap, New York City; Jennie Bishop, Ill.; Dr. Evelyn R. Bush, Ky.; Mrs. H. C. Paynter, Ky.; Mrs. Robt. Ramsey, Mich.; Norman C. McNaughton, Boston; C. O. Roe and wife, Des Moines; Mrs. W. D. Fox, Detroit; Mrs. A. M. Oswalt, Ind.; Jos. Fubeger, O.; Mrs. R. T. Austin, Chicago; Mrs. A. Morrison, Kansas City; A. C. Johnson, Chicago; B. E. Nicola, M. D., Idaho; Geo. Mahon, Tenn.; Frances C. Watter, Ia.;

Walter Davlin, O.; Mrs. A. J. H. Pease and Miss Helen Pease, Detroit; A. B. Scarborough, Tex.; Mrs. G. W. Murray, Chicago; Ward Smith and wife, Mich.; Jno. L. Rogers and A. W. Askins, Ill.; M. J. Bilz, Mich.; Hon. Chase S. Osborn and D. H. Hadrich, Lansing; J. E. Bower, Mont.; J. H. Parks and wife, and Mr. and Mrs. R. C. Pryor, Mich.; E. C. Dennis, Chicago; Ivan L. Lamprey and Mr. and Mrs. Schermerhorn, Mich.; S. C. Creston, New York City; Mr. H. C. Ward and wife, Mich.; Miss Bertie Leech, W. Va.; W. V. Hazard, Chicago; Mrs. J. Kimball, City; D. W. Place, Ind.; Mrs. C. K. Jewett and Miss Mabel Jewett, Mass.; R. Frost and Miss Frost, Ia.; Miss Sarah M. Sheridan, Detroit; Mrs. E. McNaught, Ill.; Mrs. M. N. Howard, Calif.; M. Armfield, San Francisco.

News and Personals

The spring nurses' class opened on April 3. It is a good freshman class and others are expected shortly.

Recent arrivals at the Sanitarium include Miss Howard, missionary from Japan, and Miss Jesse A. Marriott, who has been serving under the Methodist Board in China.

The Sanitarium received a brief call from Dr. Benn E. Nicola, who is on his way to Attleboro to take up the work in the Sanitarium there laid down by his brother, Dr. Charles C. Nicola, who was accidentally drowned on his way home from Bermuda last winter.

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.

On Thursday evening, Dr. A. J. Read lectured in the parlor on "Patent Medicines and Food Adulterations." Much interest was exhibited by the audience as the composition of several well-known articles of food was revealed.

Governor Chase S. Osborn spent the week end with his daughters, Miss Osborn and Mrs. Ferguson, who are guests in the Sanitarium. He came over from Lansing in his touring car and received a warm welcome from his many friends in the Sanitarium.

The Kalamazoo College Glee Club gave an entertainment in the gymnasium on Saturday evening. There was a good audience, who seemed to greatly appreciate the rousing songs and the spirit of good cheer and vigor evidenced by the band of young college men who contributed to the pleasure of the Sanitarium family.

Miss Margaret Bilz, of Grand Rapids, has been making a brief visit to her cousin, Major Sabin, who is a guest of the Sanitarium. Miss Bilz has just returned from a tour of Europe and the British Isles. She is most enthusiastic over Battle Creek Sanitarium principles and has lectured on the vegetarian diet in several English cities.

Miss Ruth Hemenway, instructor in the department of English in the Wesley University at Bloomington, Ill., is to make her fifth appearance at the Sanitarium on Saturday, April 29. She will read "The Sky Pilot," by Ralph Connor, with some humorous selections. The recital will be free, and a large audience is expected, as Miss Hemenway is a great favorite at the Sanitarium.

The Sanitarium Christian Endeavor meeting was held on Friday evening in the chapel. There was a good attendance, and the meeting was led by Miss Marjorie House, the subject being "Sabbath Benefits." Several members took part, and from their testimony it could be readily seen that the observance of the Sabbath in the home of their childhood had been a large factor in their character building.

Dr. and Mrs. Arthur H. Smith have left the Sanitarium, where they have been spending a period of rest and recuperation. Doctor Smith is much improved in health and is on his way to the Pacific Coast. He will travel up through the Coast cities, keeping a June appointment in Portland, Oregon. Mrs. Smith is going to Chicago and Beloit, Wis., for a few weeks, and then to Colorado for visits and meetings. Afterward she will join Doctor Smith on the Pacific Coast.

The meeting of the Nurses' Alumnae Association was held on the evening of April 20. Doctor Dryden gave a lecture on Women's Diseases which was much appreciated by the class. This was followed by a surprise party for Mrs. Foy. Knowing that this was her birthday, the nurses had prepared a beautiful cake to celebrate the occasion, and presented Mrs. Foy with a silver knife with which to cut it. Pleasant social intercourse brought to a close a very enjoyable meeting.

On Sunday evening, Mr. Jameson spoke in the parlor. His subject was, "God Manifest in Us." Three ways in which God reveals himself in us are in his creative work, by his cross, and by Jesus Christ. This was a very helpful discourse. Mr. Jameson has been a missionary evangelist in the South, having worked in Arkansas and Texas. His home is in Memphis, Tenn. He is a Scotchman and served his time in the British army, during which time he was converted. Mr. Jameson is taking a course of treatment in the Sanitarium and is beginning to regain his strength and vigor.

Hon. J. H. Parks, member of the legislature, from Crystal Falls, Northern Michigan, and Mrs. Parks were guests of the Sanitarium for two or three days. After the adjournment of the legislature, they left Lansing in their touring car, returning home by the way of Illinois, Iowa, Minnesota and Wisconsin. This was their first visit to our institution, and they expressed themselves much pleased with what they observed concerning the work and the manner in which the place is conducted, and were impressed with the view they had of the principles taught and practiced here.

Rev. Edwin R. Bishop, of the First Congregational Church of Grand Rapids, gave a stereopticon lecture in the gymnasium on Tuesday evening. The subject of his lecture was "Three Weeks on a Camel, or Across the Desert to Mt. Sinai, Following the Journey of the Israelites." The pictures were unusually good, and the lecturer gave a most interesting description of his travels across the desert, giving a large amount of information, interspersed with many humorous stories and characteristic sketches of the guides and natives met along the route. The large audience listened with close attention and manifested their appreciation by hearty applause.

The Sanitarium W. C. T. U. met at the home of Mrs. Dr. Martin on Wood street on Tuesday last. The chief feature was the celebration of Mary T. Lathrop Day, and a paper upon her life was read by Miss Waters of the Sanitarium Dietary department. Then items from her writings were read by each member present, and the Seventh-day Baptist quartette furnished two fine selections of music. Mrs. Martin's little daughter recited "When the Little Boy Ran Away from Home," which was greatly appreciated by the guests of the occasion. The program for the day was in charge of Mrs. Wells, who led the meeting in the absence of the President, Mrs. Emmons; and the devotions were conducted by Mrs. Wentworth.

An informal social was held in the parlor on Wednesday afternoon. A large number of people were present and listened with much appreciation to the Sanitarium guests who so kindly made sunshine inside while April showers were in progress outside. Miss Farquharson played some excellent selections on the violin, and Miss Doremus on the banjo. Both of these ladies are great favorites with the Sanitarium audiences and have often contributed to the enjoyment of these occasions.

Mrs. Marks rendered some very fine vocal solos. Mrs. Dr. Arthur H. Smith gave an interesting Chinese legend of a meeting between Confucius and an unusually bright boy. Miss Janet Martin, Doctor Martin's little daughter, won hearty applause by a very fine recitation, to which she responded with an encore, "My Mama's on a Committee," which "brought down the house."

The annual meeting of the Michigan State Nurses' Association will be held in Jackson on May 3, 4 and 5. An unusually good program has been prepared, and a large attendance is expected. Mrs. Emma A. Fox, author of a book on "Parliamentary Law," will be present and will give each day a drill on parliamentary usages. Miss Agnes A. Park, superintendent of the Visiting Nurses' Association of Detroit, will give an address on the work of the visiting nurse in tuberculosis cases. Mrs. L. E. Gretter, the State Chairman of the Red Cross Association, will speak on Red Cross nursing service; and many other important officers of the State Association will be present and take part in the program. The Sanitarium nurses will be represented by Mrs. M. S. Foy, who will give the Delegate's Report of the State Federation of Woman's Clubs.

"The Resurrection of Cho-sen" was the title of an afternoon address in the parlor by Rev. W. Carl Rufus, missionary to Korea. Cho-sen was the name originally given to the country, and is being reinstated by the Japanese authorities, who now designate the territory of Korea by that name. The speaker remarked that in the cemetery of the nations there now stood a new monument whose inscription reads: "Korea—Born 1122 B. C.; died 1910 A. D., aged 3032 years." There is on the part of the natives a deep feeling of grief over their helpless condition in being unable even to protest to what seems to them the untimely absorption of their native land by a foreign power; and at the same time the Japanese are taking every pains to make the transformation permanent, and as painless as possible, and to convince the Koreans that it is, after all, for their best interests; and the world at large assents to this.

Dr. A. J. Read spoke in Albion on Sunday to the men's class of the Methodist church, which was organized for the purpose of discussing civic and religious questions. The subject for discussion was the "Great White Plague." The following points were presented and discussed: Over 3,500 cases of tuberculosis occur annually in the United States; now over 2,500 die of the dread disease every year; that means an annual loss of more than eighty times the magnitude of the battleship Maine disaster. The average economic value of a human life to the community is estimated at \$8,000. This would make the annual money loss to the United States from this dread disease alone, two hundred millions of dollars. Following Doctor Read's statements, the class discussed measures for the prevention of tuberculosis, such as the importance of fresh air and exercise, a simple, low-protein dietary, suitable clothing, baths, and natural treatments to break up colds.

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The Mysterious Roentgen Ray

Dr. James T. Case, Sanitarium Roentgenologist, Shows Modern Uses of the X-ray in a Stereopticon Lecture at the Sanitarium Parlor

THERE is a great deal of mystery in the popular mind concerning the use of the X-ray. In fact, scientists themselves know very little as to what the X-ray is, but a great deal has been learned about how the X-rays behave, and physicians now have an extensive working knowledge of

How to Use Them, Regardless of What They Are.

The most we can say at present is that the X-rays are a form of invisible light rays. That is doubtless true, but the X-rays do not answer to very many of the ordinary properties of light. Ordinary light can be reflected. The X-rays can not be reflected. Ordinary light will not penetrate opaque substances, while the X-rays will easily pass through certain opaque substances. The X-ray, its source, and the distance from treated by lenses, but they act on photographic films like rays of ordinary light, with an activity varying according to the quantity of the X-ray, its source, and the distance from the source to the plate. Certain of the most penetrating rays from an X-ray tube will cause fluorescence on a screen at a distance of fifty or more feet from the tube.

(Continued on page three)

TAKEN FROM THE QUESTION BOX

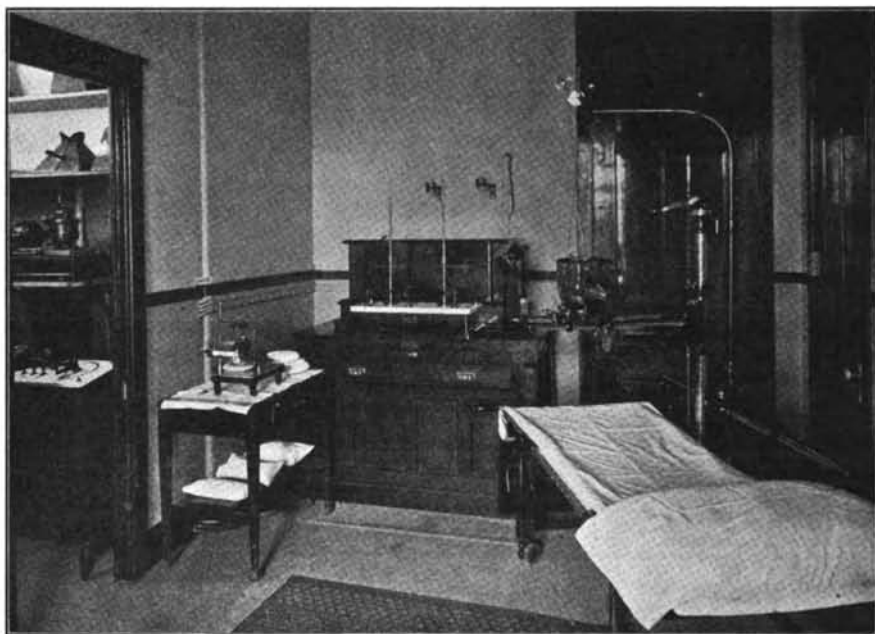
Sundry Queries Propounded by Patients, with Ready Responses by the Sanitarium Superintendent

Q. Do you not think the treatments given here are very weakening for some patients?
A. No; our treatments are not weakening.

Necessary Reforms

State Legislatures Should Guard the Lives and Health of the People—Doctor Kellogg Tells of Steps that Need to Be Taken

I AM to talk to you to-night on a subject which I frequently talk upon—how we as a race are going down hill, and what we have to do to stem the tide. Having been asked to serve for a time on the State Board of Health, I recently spent a few days at the capital of the State trying to get through some health bills to help save the lives of our fellow citizens of Michigan; and I think I shall speak of some of the steps that need to be taken by our legislatures to guard the lives and health of the people, so that some of you, perhaps, will set to going similar activities when you return to your homes, if you have not already done so.



Radiographic Room, showing high-power current generator in the center, radiograph table and tube holder on the right, and control room on the left; also small table with apparatus for localizing foreign bodies in the eye.

A hot bath makes a person feel weak, but he is not weak. I made an experiment a while ago to demonstrate the facts about that. I selected a very strong man, and we took his strength test and he lifted 6,000 pounds; so you see he was a good, strong man. We gave him a warm bath for thirty minutes, and when we got him out of the bathtub he felt very weak; we had to help him back to the dynamometer to be tested again, and he could lift only half what he did thirty minutes be-

(Continued on page six)

The Most Important Thing

that any legislature can do is to make laws to protect the morals and the health of the citizens. And these two things are more neglected than almost any others in legislation. It is a great deal easier to get laws through that are going to help enrich some one or certain corporations, a great deal easier to get a law through for the protection of pigs than to get a law for the protection of babies. It is amazing what an apathy there is on the question of human life.

I made the discovery during the last few weeks, while studying statistics in the latest reports, that Michigan is losing its standing as a healthy State. Six years ago our death-rate was only 13.3 to the thousand, which is very low, and during the years 1906 to 1911 the average was 14. That means an average of seven-tenths per cent more than ought to die, for there is no reason why we should not be just as healthy in 1911 as in 1905. And when we find the death-rate is climbing up, it means there is something wrong with the people; they are ignorant and ought to be educated.

In Our Neighboring State of Indiana

the death-rate has been going steadily down, while in Michigan the death-rate has been steadily coming up; at the same time they have more mosquitoes in Indiana than in Michigan, and hence more malaria; they have more typhoid fever than in Michigan; they have not as good a climate as we have in Michigan with these great inland seas almost surrounding us. Yet the death-rate is 1.8 less than the average in Michigan for the years mentioned, and that means a saving in Indiana of 12,000 people in three years. That means four thousand people a year die in the State of Michigan who would not die if they lived down in Indiana. I think that we would be better off if we could get the health administration of the State of Indiana extended over the State of Michigan.

Now that I am a member of the State Board of Health, I begin to feel an increased responsibility, and conceive it my duty to see that steps are taken to lower our death-rate. And one of the things I am trying to secure is

A Milk Inspector in Every Community

where milk is sold. In the present situation anybody can keep any old cow that has tuberculosis or anything else, and can milk that old cow into any kind of a dish, and can feed her on any kind of slops, and can put the distilled slops, supposed to be milk, in any old tin dish called a milk can, and carry it to market in any sort of wagon.

I saw a man going down to the market the other day who had an empty garbage can in the back of his wagon, and a full milk can in the front of his wagon, and when he went back his milk can was empty and his garbage can was full. When he went back to market the next day, that which went home with him in the back end of his wagon went to town as milk in the front end of his wagon. He takes the garbage in at the back door, and takes it out as milk next day from the front door. He calls it milk, and the people feed it to their babies, and the babies die, and we charge it to Providence.

It is Time to Reform,

to wake up, to get a little more sense. Who looks after the matter of the ice supply, to know where that ice comes from? Who knows how much filth and dirt there is frozen up in the ice? When the ice is thawed out, the germs are just as virulent as before they were frozen up; and they begin their pernicious activity at once, and if you swallow typhoid fever germs that have been frozen up all winter, they are not the least bit weakened by their long winter's freezing, they

simply have accumulated energy by their rest and are ready to attack you in good earnest.

A few States are making an investigation of the question of cold storage of meat; and this is another thing that needs to be done in every State. What has been going on since cold storage was established? An animal gets hit in the head, has its throat cut, or dies in some other way, and is put into this great morgue called a cold storage warehouse, and there it is supposed to be frozen up, and it remains there for months and months, and years, it may be,—nobody knows how long.

A short time ago a health officer found some deer lying in a cold storage warehouse, stamped to indicate that they had died in 1905, and had been all this time waiting to be buried. That thing was stopped in Pennsylvania and in New Jersey and several other States where they have laws prohibiting the sale of these carcasses that have been lying around so long in cold storage. An animal can not be kept in cold storage and sold for

Another matter demanding serious attention is the diminishing birth-rate. The estimate of this birth-rate is based, not upon the whole population, but upon the number of possible mothers,—women between the ages of fifteen and forty-five. In New South Wales it has diminished 30.6 per cent in the last twenty years; in South Australia 24, in New Zealand 24, in Victoria 24, Western Australia 23, Queensland 23, and the United States 20 per cent, in twenty-two years. This surely is race suicide. In Belgium the rate has diminished 19.8 per cent, in France 19.7 per cent. So it is diminishing more rapidly in the United States than it is in France. In England and Wales the decline is 17 per cent, in Scotland 12, Denmark 9.8, Sweden 8.2, Norway 3.7, Italy 2.5. There are only four countries in the world where there has been an increase: Spain .4 per cent; Austria, .8, and Ireland 2.3. Ireland is coming up; they are evidently expecting to have home rule there.

Not only is the birth-rate diminishing, but



Employment of the Klinoscope for stomach and bowel observations, patient lying. Twelve-inch coil to the left, X-ray tube beneath the patient, and easily operated by the observer's right hand.

food after more than three months; and that is quite too long. A man told me some time since that he knew of a man in New York who owned a warehouse, and found in his own warehouse

Fowls that Had Been There for Three Years,

getting better all the time, getting a high flavor, a *haut goût*, as the French call it, getting very gamey. Now, if we do not have a law of that sort in Michigan, all the States around us will be emptying their cold storage warehouses into Michigan, and we shall have an epidemic of appendicitis; for statistics have shown that appendicitis has increased enormously since cold storage came into vogue.

The Babies Are Dying Off.

Of the babies that are born in New England, and some other parts of the country, nearly half die. Most of the babies born in those sections have incompetent mothers, who are unable to nurse them; or if they are able to nurse them, they are unwilling to do so; so those little ones have to have a cow as a wet nurse; the poor little things have to be brought up on a calf's diet, and it does not agree with them. Breast-fed babies have a mortality of 7 per cent; but of the bottle-fed babies,

Fifty Per Cent Die in the First Year.

This is a terrible sacrifice. I may say what a crime a mother is committing who refuses to nurse her infant. If the baby dies before

it is a year old, you see that the probabilities are seven to one that she killed her baby herself. She might better have strangled it, she might better have thrown it into the river with a stone tied about its neck, than to kill it by slow torture with cow's milk, with the indigestion and the bowel troubles, and the awful suffering the poor little one has to go through.

Perhaps the mother could not nurse her child. Doctor Bunge has investigated that subject, and he finds that one of two things is the probable cause of the inability of a mother to nurse her child. Either the mother's father was a drunkard, or else her mother refused to nurse her, or was incapable of nursing her. It is a hereditary defect. When a mother fails to nurse her daughter, the daughter will not be able to nurse her child. It is a hereditary defect, and it is a consequence of race degeneracy, and Professor Bunge found that a most common cause of it was intemperance on the part of the father.

That is an hereditary effect of drink that has not yet come to be widely known, but you see what a terrible thing it is. Pretty nearly half the mothers are not able to nurse their babies, and half of those babies that are nursed on bottles die; so you see we trace it back to the drunken father who is responsible for the death of pretty nearly half of the babies that die, because their fathers were intemperate. In the tenement house districts of our great cities, the mortality of children is something frightful.

I have spoken of but a few of the things that imperatively demand attention by our public authorities. There are other matters equally important that await attention as soon as the legislators and the people in general can be brought to realize their importance. We have outlived the days of darkness and ignorance, but the dawn has not come one moment too soon, for the results of ignorance and indifference are now resting upon us with terrific force and no time should be lost in placing ourselves in line with the knowledge that has now come to us.

MYSTERIOUS ROENTGEN RAY

(Continued from page one)

We are sometimes asked who invented the X-ray.

It Was Not Invented.

It was found. You are all more or less familiar with the Crookes tube—a glass bulb with a vacuum containing two electrodes, a positive and a negative, between which electrical currents pass. When electricity first began to come into general use, Crookes tubes were exhibited by way of entertainment by popular lecturers going about the country. Sometimes beautifully colored lights were shown and various other electrical phenomena were demonstrated by means of these tubes. Professor Roentgen, a German at Wurtzburg, in 1895, while experimenting with the Crookes tube, discovered that although the tube was enveloped by black cloth impervious to ordinary light, certain rays still emanated from the tube, which made an impression on photographic plates at considerable distance

from the tube. This accidental discovery was the beginning of the development of the X-rays. The striking difference between X-rays and other invisible light rays was soon ascertained by Roentgen, who made a very searching investigation concerning the properties of this wonderful mysterious ray. In algebra the unknown quantity is designated by "X," so for lack of a better name, Roentgen called this unknown ray "the X-ray." Scientists now generally speak of the X-ray as the "Roentgen ray," and a physician who specializes in the X-ray is designated a "Roentgenologist."

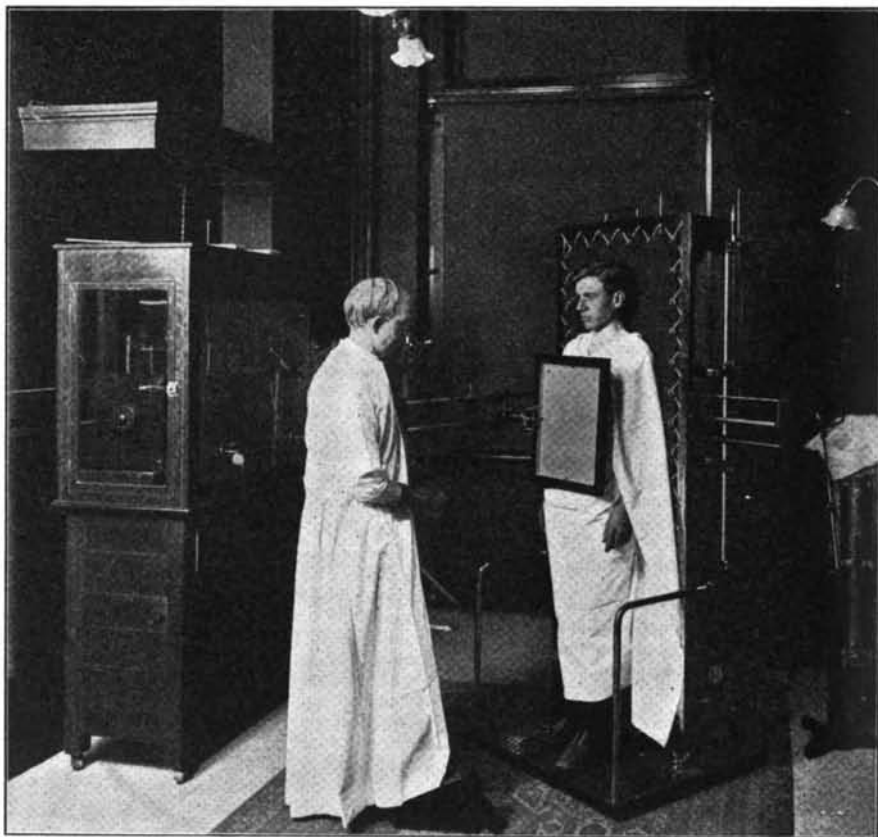
How Radiographs Are Taken

In our X-ray rooms we have a number of instruments for the production and utilization of the X-ray. The electrical current

investigation of the X-ray, and by the end of 1895 published papers containing about all the knowledge we now have about the X-ray itself. Apparatus for generating this wonderful ray was quickly introduced into hospitals all over the world, and in an incredibly short time its use as applied to medicine and surgery became almost universal.

Uses of the Ray

One of the first uses to which the ray was put was the locating of foreign bodies, such as needles, bullets, splinters of metal, floating bodies in joints, etc. The X-ray penetrates the flesh, but such solid substances as the lime-containing bones and metals are not pervious to the ray, hence they cast a shadow. In the accompanying radiographs (or shadowgraphs), the bones are the shadows



Use of the Klinoscope in chest and stomach observations, patient standing.

from our dynamo rooms is led by a special cable to the X-ray department and passed through a large transformer capable of changing the voltage from 110 volts to 120,000 volts, but with a small amperage. This transformed current is led through wires to a tube which is placed at a given distance from the photographic plate. The patient stands or lies between the tube and the plate so that the X-rays passing through the patient make an impression on the plate. The plate is then developed in a manner similar to ordinary photographic plates, and the result is an X-ray "picture," so called. It is not really a picture, but a shadowgraph, because it is a shadow rather than a photograph.

Professor Roentgen made a very complete

which were cast as the X-rays passed through the flesh to the photographic plate. The lime in the bones renders them impervious to the ray. A splinter of wood would not cast a shadow, so the X-ray probably would not help in finding a wooden splinter. Aluminum, leather, paper, and cloth such as blankets and clothing, are also easily penetrated by the X-ray, and hence cast no shadow. It is possible to make a radiograph through a shoe, showing the bones of the foot, yet nothing of the shoe will appear but the tacks. The accompanying cut is a radiograph of a hand, showing a needle among the wrist-bones. This patient came to us with a sore hand, not knowing what was the trouble, and could scarcely believe her eyes when

(Continued on page four)

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FOR THE ABATEMENT OF A NUISANCE

APROPOS to the agitation that is now going on in our city against the "smoke nuisance," we are pleased to note in a recent number of the *Morning Enquirer* the following excellent article upon the subject:

Intelligent communities throughout the world are giving their attention to the smoke evil. A correspondent to an Eastern paper says:

A millionaire Bostonian has, for some time, been devoting his leisure to investigation of the problem of how to abate the smoke nuisance and has inaugurated an agitation to co-operate with the Smoke Abatement society of London, which has accomplished so much toward alleviating conditions in that fog and smoke-ridden metropolis.

Much has already been achieved in America, many railroads have been induced seriously to consider means of cutting the volume of smoke from their engines and repair shops. Several important manufacturers have already joined the movement, while civic associations have heartily undertaken to arouse their municipalities concerning the problem. The Maine Central railroad established oil-burning engines in the Rangeleys, without waiting to be compelled, as the Adirondack lines were. The Boston & Albany circuit line, which encircles the Hub immediately west of the city, has put in use a form of smokeless coal; and the main line is also using coke as far as South Framingham, twenty-two miles from Boston.

What Smoke Does

Such facts are sufficient to indicate that the work of doing away with the smoke nuisance is going ahead, albeit, not so speedily as public and agitators would welcome.

Chicago and Pittsburg are, of course, the two most prominent centers and illustrations in this country of the smoke evil. When the passenger on any of the numerous railroad lines entering Chicago gets within an hour and a half's time from the depot, he discerns a mighty wall of black. It covers the horizon in either direction as far as the eye can reach, and creates an impression that to enter Chicago is to disappear in a lightless inferno from which there is never to be an escape. Pittsburg presents the same suggestion.

Scientists enumerate the features of the smoke nuisance as follows:

Injury to the health, increase of the death-rate, cause of tuberculosis, lowering of human vitality, injury to the eyes, injury to the respiratory organs.

Detriment to public buildings and private dwellings, ruin of monuments, statues and inscriptions.

Ruin of private property, furniture,

hangings, pictures, rugs, carpets and costly dresses.

Defoliation and ruin of gardens, trees, flower-beds, and public and private pleasure grounds.

Dr. E. Glintzer in a very careful report on smoke to the city of Hamburg, Germany, says: "In the dissection of bodies in the London hospitals, it is frequently observed that the lungs are coated black with coal dust."

Damage in Millions

Dr. John W. Wainwright, of New York, in a report upon this subject says: "A prominent Chicago merchant recently asserted that in his establishment alone the value of goods was reduced \$200,000 last year because of becoming soiled, and that most of this damage was due to smoke in the atmosphere, and that he believed the damage done in other mercantile houses along State street would approach \$2,000,000. 'In fact,' he said, 'I believe the damage caused to our city by this black smoke amounts to more than \$40,000,000 taxes annually paid here.'"

Says another authority, in explanation of just what it is that causes damage to buildings and monuments from smoke:

"It contains, in addition to the carbon, hydrocarbon and carbonic acid and sulphurous and sulphuric acid, which with watery vapor causes them to seize upon and decompose the mortar and cement of buildings, statuary, copper, zinc and bronze of roofs or ornaments. Even granite monoliths that have stood unharmed in the clear atmosphere of Egypt for thousands of years begin to decompose the moment they are brought to London or New York."

A real estate expert in Boston estimates the damage to buildings and their contents by smoke yearly as not less than \$4,000,000.

The librarian of Harvard University in his latest report declares that the soot-laden atmosphere is ruining the volumes of the library.

Smokeless Fuels

Germany has enacted very strict laws on the subject of smoke and wisely left the enforcement of them to the police. These laws concede the necessity of smoke, but are very precise as to the character of the business, kind of furnace, boilers, etc., to be used, making it essential to the issuing of a permit that the newest and most approved kinds of coal, coke, peat or brisquette be used, and the chimney raised to such a height that the smoke shall not annoy neighbors.

FASHIONS FOR TURKISH WOMEN.

[The following communication is from Mrs. J. P. McNaughton, a missionary with her husband in Smyrna, Turkey, and presents the subject of fashions in a true light.]

THE home was a true Turkish one, and as we entered the reception room, we found a group of women, some sitting on cushions on the floor, others on the divan, drinking from small coffee cups the inevitable Turkish coffee. The older women were smoking cigarettes. Latticed windows hid us from the gaze of the outside world.

Of course the women had thrown off their veils and outer coverings. Their hair was puffed and arranged with combs and ornaments and their dresses were modeled after Western fashions, one of them even having a train to her gown.

Before long, "dress" became a topic of conversation, as the Turkish women are very

eager to copy their European sisters in such matters.

A book was produced which to my surprise was an American fashion book, containing the latest styles, large picture hats, close clinging drapery and "hobble skirts."

These were looked at and passed over without much comment. Then one bright-eyed woman said, "Have you heard that European ladies are going to wear 'shelvas'?" in other words, the "harem skirt."

Then indeed there were exclamations and surprised looks, for our Turkish sisters have been slowly discarding their old-time costume, thinking it unsuitable and unwomanly, and gradually adopting the more graceful, flowing skirts of their Christian neighbors.

And now their own abandoned costumes are forced back upon them by those who are the leaders of the fashionable world in advanced Christian nations.

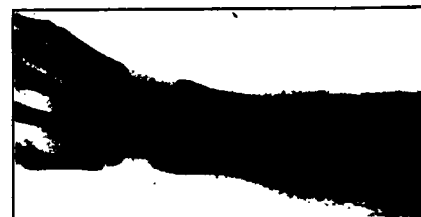
Would it not be becoming in those who advocate the "harem skirt", to complete the fashion in which the originators appeared in public, and add an outer robe, entirely concealing the form and harem costume, and a veil, which hid from the eyes of men the modest features of the beautiful women of the East?

MYSTERIOUS ROENTGEN RAY

(Continued from page three)

shown the radiograph demonstrating the presence of a needle. She then remembered doing some work about a carpet several weeks before, but was not aware that she had gotten a needle into her hand. The X-ray revealed it.

A child was brought to us not very long ago, suffering from "rheumatism" in the



Radiograph showing fracture of both bones of the forearm.

knee. Not responding to the usual anti-rheumatic treatment, a radiograph was made, and, as you see, a needle was found in the knee joint. Another woman came to us complaining of lameness and requested treatment for "neuralgia" in her foot. On account of the obstinate nature of the "neuralgia," a radiograph was made, demonstrating one of the metal points used in phonographs which had, in some unaccountable way, gotten into the foot.

Stone in the kidney was formerly very difficult to diagnose. Surgeons would operate upon patients who had symptoms of stone in the kidney, and frequently would find no stone. Now no surgeon will operate for stone in the kidney until he has a reliable radiograph locating the stone.

Radiographic examinations are also of inestimable value in determining the presence and exact location of stones in the ureter (the

tube which connects the kidney to the bladder), also stones in the bladder.

Another early use of the Roentgen ray was in the diagnosis of fractures and dislocations, also in diseases of the bones and joints, such as rheumatism, tuberculosis, gout, rickets, and similar conditions.

At first the Roentgen ray was not employed to any great extent in studying the heart, lungs, stomach, or colon. In other words, it was not very extensively employed in internal medicine, its use being confined largely to surgical diagnosis. Of late years, improved apparatus has made it possible to obtain information concerning the condition of internal parts which were formerly inaccessible without surgical operation. By the aid of the klinoscope, shown in the accompanying



Radiograph showing a fragment of a needle in the hand.

are indicated by the radiograph in cases where lime has been deposited in the arterial walls, as for instance, in arteriosclerosis, or hardening of the arteries, one of the signs of advancing age.

One of the illustrations shows an arm affected by rickets. This is the arm of a man of perhaps fifty years of age. When a child he lived in such surroundings that he was a victim of rickets, and the deformity persists through his whole lifetime. His daughter, a girl of fifteen, has an arm similar in its deformity, also a result of rickets in childhood, doubtless due to the fact that she lived under

the same conditions which made it possible for her father to become a victim of the disease.

The eye, ear, nose and throat specialists find the X-ray of great value in their work. Diseased conditions of the frontal and other pneumatic sinuses connected with the nose are easily shown by a radiograph. Disease of the mastoid cells, so common a complication in middle ear inflammation, may be shown upon radiographic plates. No surgeon will now undertake a serious operation involving the nasal sinuses or the mastoid cells without first having a radiograph of the part to be operated on.

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 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.

Good reading for the Home Circle; Helpful, Interesting, Instructive. Fifty cents per year. To Foreign Countries sixty cents. Sample copies free. Note the Combinations offered above.

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Normal School of Physical Education

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A Two-Years' Course. Each year comprises thirty-five weeks and an eight-weeks' Summer Course.

By affiliation of this school with 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, \$40. 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.

Dentists find the X-ray of the greatest value, especially in locating misplaced or unerupted teeth, especially wisdom teeth. Other dental conditions shown by this mysterious ray are abscesses about the roots of teeth.



Radiograph showing bone deformity in forearm, resulting from rickets in childhood.

deformed teeth, infringement of the root canal upon the nerve canals in the jaw bone, necrosis of the jaw, etc. Whether or not a root filling has been properly done can be demonstrated by means of dental radiographs.

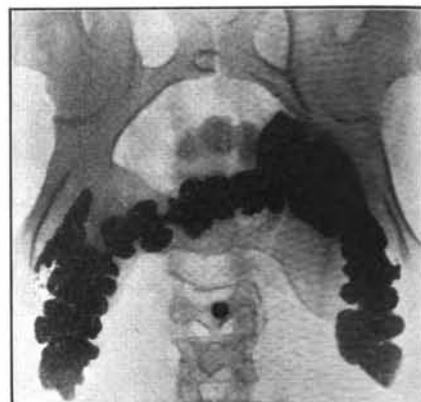
The X-ray renders peculiar value in the removal of foreign bodies, such as, for instance, needles or bullets. Many a surgeon has searched for an hour in the effort to find and remove a fragment of a needle, whereas in the presence of the X-ray it is possible in most cases to find and remove the offending

foreign body within a very few minutes.

In the olden days patients were sometimes injured by what are called X-ray burns. Nowadays this is a very rare circumstance because exposures are so very brief. Less than as many seconds are now required as it used to take minutes. Fifteen or twenty-minute exposures were quite common in the early days, whereas nowadays with our improved apparatus, a patient is rarely exposed to the ray for more than ten seconds, and a so-called "X-ray burn" is a thing unheard of. In the treatment of diseases by means of the X-ray, these so-called burns are occasionally met with, but they are intentional and justifiable. A certain amount of X-ray "burn" is intentionally produced by the X-ray specialist in the treatment of certain deep-seated affections and in some skin troubles. This is not a burn but an erythema, similar to a so-called sunburn, and before long the term "X-ray burn" will pass out of use.

It can not be denied that the X-ray is capable of doing mischief as well as good. No person acquainted with the facts would think of permitting an application of X-rays by one not known to be thoroughly competent and expert in this particular branch of therapeutics. In the early days of X-ray therapeutics, the nature of this agent and the prin-

ciples controlling its applications were not understood as at present, and the apparatus employed in its use did not permit of absolute control. But experience and scientific research have removed these difficulties and have provided reliable safeguards, so that no one suffering from a disease amenable to the X-rays need hesitate for a moment to resort to its use, provided, of course, that it



Radiograph of a badly prolapsed colon.

be applied by a thoroughly qualified Roentgenologist provided with an up-to-date equipment.

As a curative agent, the X-ray has been employed with great success in the treatment of many diseases, but this is a subject I shall speak of at another time.

QUESTION BOX

(Continued from page one)

fore. We took him to the bathroom at once and gave him a cold shower bath for three minutes, and took him back to the dynamometer, and he lifted ten per cent more than he did the first time; so you see he was not weakened by the treatment. Whatever weakening effect one gets from a warm bath is completely removed by a cold bath. It is simply nervous depression; it is not actual weakening of the body. If you feel weak after your treatment, speak to your doctor about it, and he will arrange your bath so you will get a proper cold application at the close, that will give you a lift above the level at which you were before the warm bath.

Q. Tell us about anemia.

A. Anemia is due to the destruction of the blood by poisons. A person is anemic not because he hasn't power to make blood, but because the blood he has already made is dissolved and destroyed by poisons absorbed from the intestine. The late Doctor Herter, of New York, proved that by actual experiment. He separated the poisons, he found the germs which make the poisons, and he brought these poisons in contact with blood and saw the blood dissolve right before his eyes; so we know this is the fact.

Q. What is the cause of sour stomach?

A. Too much acid formed in the stomach. It is not fermentation, but too much hydrochloric acid.

A CHANCE FOR STUDENT NURSES

THE BATTLE CREEK SANITARIUM AND HOSPITAL TRAINING SCHOOL FOR NURSES

offers exceptional advantages to those who contemplate taking up the Nurse's profession. A Three-Years'-Course is offered to Women, and a Two-Years' Course to Men. Over two hundred Nurses are employed in the institution.

The demand for Nurses who are trained in the Sanitarium principles and methods is constantly increasing, both in the institution and outside. A good salary awaits those who finish the course.

In addition to the usual subjects taught in hospital training schools, special attention is given to all branches of physiologic therapeutics, including hydrotherapy, radiotherapy, electrotherapy, 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.

For full information address

SANITARIUM

Battle Creek, Mich.

Q. What per cent below par can the blood-cells reach, both as to quantity and quality, without being dangerous?

A. A person whose blood is only eighty should bestir himself and get up to par. I might ask you a question about your business—How far would it be proper to let your capital run down? Suppose you found your capital had depreciated twenty per cent at the end of the year; you have made no profit at all, and have lost twenty per cent of your capital. How far could you let your business go down that way without injury? Most of you would say that five per cent was bad depreciation. You want it to get above par instead of below. It is better to have the blood a little above par than to have it below.

Q. Is it possible to reduce flesh without deteriorating the blood and nerves?

A. One can reduce flesh to some degree if there is a surplus of adipose tissue, without injuring the rest of the body; but if one only has the normal amount of adipose tissue, then when he starves himself he depletes all his tissues. The starvation process attacks and reduces every tissue of the body.

Q. What is a dilated colon?

A. A colon that has been overstretched by intestinal inactivity or by the formation of gas in the intestine.

Q. Do not most animals lie down, at least rest, after eating.

A. Yes, it is a good thing, especially for people who have sour stomachs or heavy stomachs to lie down for half an hour or so after eating.

Q. Is it harmful to eat grape fruit or oranges at breakfast with some cereal and cream or milk.

A. Not at all. There is no disagreement between acid fruits and milk, as many people suppose.

Q. Could recurrent pains in the region of the liver, extending over a period of fifteen years, the general health remaining unimpaired, be caused by cancer?

A. Certainly not. Cancer does not last so long as fifteen years. It is certainly not cancer of the liver, which is a disease which runs its course almost invariably within two or three years.

Q. What cereals are the best substitute for beef and bacon?

A. All the cereals I know of are perfect substitutes for beef and bacon. Beef is made of corn, but when you eat the beef you do not get all the corn back; that is the real trouble. So, bacon is made of corn, but when you eat the bacon you do not get all the corn. The pig has wasted a lot of that corn running around; and besides, the lime of the corn has been deposited in the bones of the pig, and when you eat the pig, you do not eat the bone, so you do not get the lime all back. One must eat "the whole hog or none" to get the corn all back.

ARRIVALS

THE list of guests who registered at the Battle Creek Sanitarium for the week ending

April 30 is as follows: I. W. Murphy, City; M. J. Arthur, Mich.; Mrs. S. H. Kirby, Kalamazoo; Mrs. H. W. Seutz, W. Va.; C. C. Benson, C. D. Warner, Evans Holbrook and E. W. Dollman, Mich.; Jas. Pendergast, Chicago; L. E. Doty, Mich.; Mrs. G. W. Sherwood, Wis.; Mrs. Edwin C. Henry, Neb.; Chas. C. Neadom, N. Y.; L. Hanson, Syracuse; A. A. Dorrance, Charles Wolohan, Mich.; Alfred Shepard and wife, Ga.; O. E. Otis, Mich.; L. Daniel Wells, Detroit; Mrs. H. S. Bigelow, Mich.; Mrs. J. W. Ritter, Chicago; H. J. Little, Mo.; Miss L. A. James, L. L. Sutton and G. K. Fetinler, O.; Dr. John C. Hick and F. S. Seagrave, Ill.; P. N. Hickman, Ala.; S. B. Broadhead, N. Y.; E. Arends, S. Dak.; E. Robichaux, La.; L. Robichaux, Tex.; Mrs. Frank Buell and Miss Alta Reagan, and Miss Schermerhorn, Mich.; Mrs. Lucy Underhill and daughter, and Mrs. Samuel McCall, Ky.; Mrs. J. R. Pryor and Miss Mary Corneiller, Mich.; J. C. Howley, Miss; F. K. Safford, Ind.; Mrs. J. S. Mangum, Miss.; C. R. Williams and H. F. O'Neill, Pittsburg; C. H. Belknap, Tenn.; F. M. Barnhart and Rev. C. Share, O.; A. E. Burdick, Mass.; J. C. Burrell, Chicago; Jennie F. Grandy, Mich.; Frank W. Habig, Cincinnati; Jake A. Keeper, Cleveland; M. J. Fox, Detroit; J. H. Mitchell, New York City; Jas. I. Workman, S. Dak.; C. W. Colliers and wife, Brooklyn; Mrs. G. H. Baldwin, La.; R. L. McConnell, Va.; Mrs. C. K. Briggs and Edith Briggs, Ill.; Miss Nannie Tison, Mrs. C. H. Walker and son, and F. R. Walker and wife, Miss; Mrs. J. E. Bower and son, Mont.; A. Van Aalot and family, Canada; Mrs. S. A. Sherwood, Miss Trainor and L. A. Sherwood, Ill.; Mrs. J. M. Woods

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.

and Mrs. M. M. Woods, Pa.; Mrs. H. G. Garrett, Okla.; Mr. and Mrs. O. J. Ericson, Ia.; Geo. Mahon, Tenn.; Mrs. Wm. B. Latta, New York City; Harrison S. Elliott, New York City; Mrs. F. A. Tarr and Mrs. Sue Jones, Pa.; Ruth Hemenway, Ill.; Mrs. D. H. Lyon, Tex.; Mrs. A. W. Murray, Chicago; H. L. Hubbard, Ind.; Mrs. A. Goodholm and children, Okla.; J. H. Perry, Toledo; Benton V. Johnson, Mich.; Rev. W. Clifton Dodd, Siam; Guy S. Hastings, Detroit; O. F. Payne, W. Va.; Mr. and Mrs. Harvey Smith, Mich.; Mr. and Mrs. Samuel J. Tucker, Sask.; P. S. Kellogg, M. D., Wyo.; J. W. Pontius, New York City; J. A. Van Rossman, Mich.; Mrs. Melvin Meyer, Cuba; Miss Fray, B. W. I.; Miss Burnie Suddoth and A. E. Suddoth, Miss.; Chas. C. Harden, Chicago; Cynthia A. Allen, O.; Reynolds Smith, Detroit; Geo. D. Schermerhorn and E. M. Schermerhorn, Mich.; Mrs. Cora P. Petrie, Ky.; Mrs. John J. Spaun, Mrs. Thos. H. Spaun and Sarah L. Spaun, Indianapolis; H. C. Elliott, Chicago; C. C. Benson, Mich.; A. W. Ocozbek and wife, Ore.; J. R. Rehard, Tex.; F. R. Olmsted, Kalamazoo; Mrs. Hattie Duncombe, Chicago; Lina W. Dymff, Salt Lake City.

News and Personals

Doctor Vandevort, Doctor Stoner and Miss Sweet made a short vacation trip to Chicago, during which time they had the pleasure of hearing the Sheffield choir.

Miss Margaret Waters has gone to her home in Terre Haute, Ind., for a month's vacation, after which she will return to be the first assistant dietitian in the main building.

Several of the Sanitarium nurses will go to Jackson this week to attend the Conference of the Michigan State Nurses' Association. A full and interesting program has been prepared.

A letter from New York, written by a former patient, says: "I look over the BATTLE CREEK IDEA each week and note some of the people who have returned to the Sanitarium this year, and in imagination listen with them to the lectures given in the parlor."

Dr. A. J. Read, of the Sanitarium medical staff, lectured on Sunday in the Congregational church of Kalamazoo to a large and deeply interested audience on the subject of Tuberculosis. The lecture was well illustrated with stereopticon views, and was given under the auspices of the State Association for the Prevention of Tuberculosis.

It has been decided to change the hour of the daily prayer meeting to 5:20 p. m. This time seems to be more generally convenient than the noon hour and it is hoped that many of the Sanitarium guests and members of the family will enjoy the quiet vesper services which close promptly at 5:50. These services are held in the fifth-floor parlor.

Doctor Case gave a stereopticon lecture in the parlor on Thursday evening on "The Value of the X-ray for Medical Diagnosis." There was a large audience, who watched with much interest the numerous shadow-graphs that were shown upon the screen, and followed the lecture with close attention. Their usually keen interest was manifested by hearty applause at the close of the lecture.

Mr. Fred Butler, the noted bass soloist, who was so much enjoyed by the Sanitarium family on a recent visit, is expected to return to the Sanitarium in the near future, when arrangements will be made for several song recitals. Mr. Butler was connected with grand opera, but gave it up to devote his life to singing of the Gospel. Of him, Dr. J. Wilbur Chapin says: "He is the greatest interpreter of religious music in the world."

Miss Ruth Hemenway gave a reading to a large and enthusiastic audience in the parlor on Saturday evening. Her selections were, Mrs. Frances Hodgson Burnett's story, "The Dawn of a To-morrow," and short humorous pieces. Miss Hemenway, who is professor of English in the Wesleyan University in Bloomington, Ill., is a great favorite with the Sanitarium family and always meets with a warm welcome. Her father is a prominent physician and surgeon in Evanston, Ill.

Dr. Carolyn Geisel and Miss Eva Evans have returned to the Sanitarium from their trip South in the Chautauqua work. They lectured through Florida and Alabama in Chautauqua centers, and everywhere much interest was manifested in the principles of health, exercise and dietetics. The daily papers in all these centers gave excellent accounts of their work. Doctor Geisel is now taking a much needed rest and Miss Evans is working with Doctor Case in the X-ray department.

It becomes necessary in many cases for the children to accompany their parents to the institution; and as the Sanitarium endeavors to provide for the welfare of each class of its patrons, a kindergarten is maintained during the summer season. Just now a new and very helpful diversion has been provided by the physical director, Prof. Anton Schatzel, in the form of a children's class which is held daily at twelve o'clock. Great interest is manifested in this feature of entertainment for the little ones, and they will surely derive much benefit from it. The children will do well to take notice.

Mrs. Lillian G. Robison, of Euclid Ave., Willoughby near Cleveland, who has been at the Sanitarium for four months, has returned to her home. Mrs. Robison decided to spend the winter months at the Sanitarium instead of going to Florida as has been her wont. She is a representative of one of the well-known old families of Cleveland. Her husband, Mr. Jas. T. Robison, who died three years ago, was widely known in the business world, and was a strong factor in the political life of his State. His father, the Hon. John P. Robison, was one of the men who helped to make the history of the State of Ohio. Mrs. Robison has made a large circle

of friends during her visit at the Sanitarium, and will long be remembered by the family for her genial presence and helpfulness in the social life of the institution.

The Christian Endeavor meeting was merged with the Bible Study Convention on Friday evening. The meeting was led by Mr. W. C. Kellogg. The speakers were Dr. E. G. Lewis, and Rev. B. F. Taber of this city, Mr. B. V. Johnson, State Secretary for religious work of the Y. M. C. A., and Mr. Harrison S. Elliott, international secretary of the Y. M. C. A. The meeting was well attended and much helpfulness and inspiration to the study of the Bible was given by the various speakers who spoke in reference to the tercentenary of King James' translation of the Scriptures. Mrs. Rashio contributed an excellent solo, "The Lord is Mindful of His Own."

A Bible Study Institute was held in the Sanitarium chapel from Friday evening to Sunday evening inclusive, there being several meetings held each day. Four hours were devoted to specific Bible study in groups led by the leaders of the Institute, each upon different topics. The rest of the time was given to the study of principles and other considerations in connection with systematic daily study of the Bible. The Institute was under the leadership of Mr. H. S. Elliott, of New York, member of the International Committee of the Y. M. C. A. on Bible Study, and associated with him were Mr. J. W. Pontius, Eastern Secretary for Bible Study, and Mr. B. V. Johnson, Secretary of Religious work and Bible study in the State Association. These men were fully possessed of their work, were enthusiastic and intelligent in their propositions, and altogether the meeting proved to be a very great success. Steps were taken for organization of daily study groups among the various departments of the Sanitarium.

Dr. P. H. J. Lerrigo gave a stereopticon lecture in the gymnasium on Sunday evening. There was a large and attentive audience, who watched with interest the illustrations of the life and medical mission work in the Philippines. His pictures showed many phases of industrial and home life and well illustrated the advance which is being made in mission work in that land. Doctor Lerrigo went to the province of Capiz about nine years ago, when he opened up the first mission station there. From that center churches have been established throughout the province, and a vigorous work, both evangelical and medical, has been developed. A new hospital has just been completed, and Doctor Lerrigo is now in this country securing the needed equipment. The Central church mission residences, orphans' home, school, dispensary, and hospital have all been completed and form a mission center whose influences are very far-reaching. This is a noble record for the nine years of hard service there, especially when it is remembered that upon the missionary's first visit to that province it was almost impossible to find a shelter for the night, so keen was the suspicion with which the Protestant missionary was regarded.

THE BATTLE CREEK IDEA

VOLUME IV
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CAUSES AND PREVALENCE OF CHRONIC DISEASE

From a Lecture in the Sanitarium Parlor,
By M. A. Mortensen, M. D.—Hered-
ity, Habit, and Personal
Hygiene Are Factors

THE subject of chronic diseases is, of
course, a very important one to the human

A Phenomenal Development

The Growth of the Battle Creek Sanitarium
Develops Another Great Stage—The
Occupation of the Sanatorium
Building Now Decided Upon

It is with no feelings of exultation that
we refer to the wonderful growth of the

THE ORIGINAL DIET IS STILL THE BEST

Dr. J. H. Kellogg Replies to the Question,
Can a Hard-working Man Subsist
on a Vegetarian Diet?

Most assuredly he can. The opinion ex-
ists to quite an extent that the eating of
meat is essential in obtaining strength and



THE SANITORIUM ANNEX TO BE OPENED ABOUT JUNE 15

family. If we look backward thirty or forty
years, we see that medical science was then
fighting acute diseases; the things especially
feared were, for instance, smallpox, typhoid
(Continued on page three)

Battle Creek Sanitarium during its short life
of forty-six years. There is no occasion for
personal glorification on the part of those
who have had the work in charge, because
(Continued on page three)

endurance. And this opinion exists in spite
of the frequent tests and experiments that
have demonstrated the opposite over and
over again. The results of these experiments
and tests have been published abroad, yet

many people cling to the old tradition. To answer such questions, one has but to look to the animal creation. The ox, the horse, the elephant, and indeed all the

Beasts of Burden and Labor Are Non-Flesh-Eating Animals.

The carnivorous animals naturally roam about during the night after their prey, and then sleep during the day when honest animals are at work. Every test of strength between men who eat flesh and those who do not eat it has resulted in showing the superior strength and endurance of the latter class. And yet, people doubt and hesitate to receive this well-attested fact.

A diet of fruits, grains, nuts and cereals is a diet that sustains many tribes and nations of men and species of animals, and has kept them in good, vigorous health for ages; and the fact that we are able to live while eating some other things is only evidence that we have ability to resist the effects of unnatural conditions and to exist in spite of our transgressing. Flesh is an unnatural diet. The sooner we get rid of the idea that meat is essential to health and strength, the better it will be for us.

The sooner we become thoroughly convinced that we absolutely have no use for flesh foods of any sort, that they are absolutely unnecessary and unwholesome, and that when we take them we do it greatly to our disadvantage and injury; when we get dispossessed of the idea that they are necessary or even advisable, we shall be

On the Road to Better Things.

At the present time there is a popular notion abroad in the world that meat is an essential element in any diet, that it is the food *par excellence*. Nothing could be farther from the truth; nothing could be more positively absurd, than that an animal like a human being must eat the flesh of another animal in order to live. Why, the economy of the world is essentially opposed to this.

We can see this very clearly by reference to the Bible. This is such an interesting matter that you will pardon me if I refer to the good old Book as authority. The best account we have of the origin of man is that to be found in the Bible. Man was created, and nobody has ever been able to give any better account of the origin of man on this planet than that he was created by some higher Intelligence.

Ninety-nine out of a hundred

Scientific Men Acknowledge that There is a Creator,

a higher Power who formed man; and with that great fact before us, I want to call your attention to the fact that the same Power that made man told him what to eat. According to the very earliest records that we have, whether you call it tradition, whether you call it history, or inspired information however you regard it, the very earliest information we have on the subject of diet and the most authentic, is found in the first chapter of Genesis, and this comprises the first lesson in dietetics the world ever received. It says, "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." That is man's bill of fare—"every herb bearing seed, and every tree bearing fruit, to you it shall be for meat," or food. "And to every beast of the field and to every fowl of the air, and to everything that creepeth upon the earth wherein there is life, I have given every green herb for meat; and it was so." That was the primeval order of things. The animal creation was to be sustained by the vegetable world.

We were not left in the dark on this question. But we have wandered away from the original standard of diet, and it is a strange thing that that comical clown, the ape, has clung closely to the original order of things, while man has not. When we find an ape, a gorilla, a baboon, a chimpanzee, or orang-outang, he is still adhering to the original bill of fare, which the book of Genesis says God gave to man to eat. If we found the fierce gorilla killing and eating other animals, we should not wonder at it; but instead we find these animals that come closest to man in their structure, though far stronger and fiercer, living upon the food the Bible says man was intended to live upon. It is an interesting fact that some of these lower animals, as we call them, have wandered less from the right road in diet than man has.

Man Set Out to Exploit the World.

He was intended to live in the tropics; but he insisted on experimenting with himself, and living everywhere else but in the tropics. The most of the population of the world, the most vigorous races at the present time, are found outside of the tropics. Man acquired the art of making clothing, and by the aid of clothing, by making houses and protecting himself, he was able to live in any sort of climate. By the aid of cookery he has been able to eat a great number of things he otherwise could not have eaten. There is nothing said about cookery in the first chapter of Genesis. Cookery was not necessary in the primitive state. The soft cereals, the soft grains, the unripe grains and herbs are perfectly digestible in the green state. There is nothing more delicious to one whose taste is natural than ears of green corn just as you pick them off the stalk.

But we have developed the pernicious notion that everything must be cooked. Cooking destroys some subtle element in the food that is put there for our use, and that we need.

It was recently asserted by an English scientist that the rays of the sun shining upon the fruits deposit in those fruits and in all the cereals a certain amount of radioactive energy;

The Same Energy that is Found in Radium is found in the actinic rays of the sun, and this energy is deposited in the fruit. That is one reason why fruit is so refreshing taken in its raw state; why the juice of an orange is so extremely refreshing and nourishing and helpful in a great number of cases.

I was talking with one of my colleagues today about a patient, who, when he came here a few weeks ago, we thought was going to die; but he is making wonderful improvement. His blood was away down below thirty when he came, and now it is over sixty. The doctor is having him eat all the green and

fresh foods possible. This class of food is not valuable because of any great amount of nutriment in it, but because of the subtle elements put into them that the chemist has never been able to discover; and probably one of the elements is this radioactive energy that has been deposited by the sun's rays, in fresh fruit, in fresh vegetables, that is found in spring water, but is not found in distilled water, and that is not found in anything cooked. Everybody knows that cooked water is insipid; there is something lacking; we do not know just what it is, but it has lost its refreshing qualities to some extent, and it has to be exposed to the air and shaken up in order to make it even tolerable.

Then there are oxidases, and diastases and various other enzymes that are found in the juices of fruits and of uncooked vegetables, which are destroyed by cooking. These are in some way essential to our well-being. We have gotten away from the order of nature;

We Have Sought Out So Many Inventions

to find ways of our own, that we have wandered in some respects entirely off the track; and that is certainly true when we come to cookery, for cookery deteriorates our food-stuffs.

To be sure, there are certain foodstuffs, particularly dry grains, that we can not eat well without cooking. And the coarse vegetables, like the potato, turnip, parsnip, and those vegetable products, seem to require cookery in order that we may be able to assimilate them; but if we live entirely upon these cooked things, we experience a loss very soon. In a couple of weeks children will get in a bad way on sterilized milk, but the juice of one lemon or one orange every day will change the whole state of things and save the child's life. The natural food that Nature designed for us is exactly adapted to us, and when we depart very widely from the provisions of creative wisdom, we run the risk of deterioration and final extinction.

Different classes of animals living on different kinds of foods have different kinds of digestive organs. The whale eats fish, and it is well known by zoologists that

Whales Have from Seven to Eleven Stomachs;

so we conclude that for some reason it takes a very complicated stomach to deal with fish. It takes a complicated stomach to digest leaves and stems and coarse vegetables; so we find the goat provided with four stomachs. It takes a peculiar sort of an apparatus to digest meat. The dog has a stomach which makes a large amount of proportionately strong hydrochloric acid, and a liver four times as big as the human liver; it requires an enormous liver and a strong acid-forming stomach to digest meat. On the other hand, the ape has a stomach that is exactly adapted to soft grains, fruits and nuts. He has a stomach which makes the gastric juice that is adapted to their digestion.

But here comes along the man, who says, "I know what I want, and I propose to eat anything I like." According to the Bible account, we all got into trouble because of that curiosity to taste every new thing, at the very beginning, and that curiosity to eat forbidden food is still with us. The man is not

adapted to eat the things the lion eats, because he does not have a stomach or a liver that is adapted to the lion's diet. A man who is going to live on cold-storage beef needs a turkey buzzard stomach and a turkey buzzard liver to take care of the carrion that is put out and sold under the name of cold-storage beef,—turkeys that have been lying up in the storage house for two or three years, and venison that has been there half a decade. So, if a man is going to live on coarse herbage, he needs a goat's stomach to digest that sort of food and get out of it the nourishment the body requires.

Here is a man who sits down at a hotel table, and on the bill of fare is

The Food of All Creation.

There are fish for the whales, herbage for the goats, meat for the dogs, and there are fruits and nuts for the monkey. The man sits down there with his one little ape stomach adapted to fruits and nuts particularly, and expects to be able to digest everything the whale digests, and all the goat digests, and all that the dog digests; and takes it all at one meal, too. Why, my friends, the way in which we deal with ourselves is preposterous. A man to eat that kind of meal requires thirteen stomachs working actively—seven whale stomachs for fish, four goat stomachs for the grass, one very strong stomach for the flesh meats, and another for grains, fruits, and nuts that belong to him—thirteen in all. There is no animal that can do it except the woodchuck, which has fourteen stomachs, and so he can digest the hotel bill of fare. No man can do it without ruining his digestive powers.

So we need to reform. We need to eat food that is adapted to our needs. We are off the track when we eat the diet the dog eats, we are off the track entirely when we eat food that decomposes, that requires a turkey buzzard's stomach and liver to deal with it; we are only in the right road when we are eating the things that were intended for us, and indicated in the good Book as being the design of the Creator for the human race to forever subsist upon.

A PHENOMENAL DEVELOPMENT

(Continued from page one)

they fully recognize that its remarkable progress has simply been an indication of the progress that its principles have made in the recognition and confidence of intelligent people and of the success that the methods suggested by these principles have developed in relieving human sufferings. The only effective advertising the institution has ever had has been the reputation it has gained in affording the means of relief from sickness and in its character as a teacher and exponent of sound health and hygienic doctrine.

At the Outset

At first its teachings and its practices were very unpopular. And indeed they were crude and experimental. The administration of its measures was very largely empirical, but after twelve years of ineffectual effort, during which a mere existence as a water-cure was maintained, the institution was brought into harmony in teaching and prac-

tice with scientific principles and natural laws. Well-defined relations were established, and the path to recovery from sickness was discovered and brought out. No blatant and flaming heraldry of cure-alls and panaceas was made, no reckless use of printer's ink, and no lies and deceit were employed; no false testimonials were conjured up, none of the questionable practices of obtaining patronage or attracting attention were appealed to; the institution was simply brought into line with scientific and natural methods and principles, it was made to rely upon these alone, in its work, and to rely upon results for its rise or fall. The results have justified the confidence of its friends, truth has won out, rational methods have been vindicated, and on this record alone the success of the institution now rests in its future career.

Long years ago P. T. Barnum discovered the fact that

are only such as exist in the greatest abundance all about us, and are as free as the air we breathe.

Under the propaganda of such principles has this work advanced, in spite of the prejudice with which the undertaking was greeted at the outset.

Beginning in 1864

in a small farm residence outside the north boundary of the city, burned to the ground in 1902, it has arisen to its present position and proportions by virtue of its merits. We shall not undertake to outline the various stages by which the institution has expanded and extended its influence.

The latest development in growth is the occupation of the large Sanatorium built ten years ago, and located on grounds adjoining those of the Sanitarium. This magnificent building, shown on the first page, has been leased, and is being fitted up and placed in



THE SANATORIUM IN 1866

"The People Love to Be Humbugged,"

and unprincipled men have not been slow to take advantage of that fact to enrich themselves. There probably never was an undertaking foisted upon the public confidence so erratic and ridiculous that it did not attract followers, and we are almost warranted in saying that the more ridiculous, the greater the following.

This, we can say in conscience, has not been the course of the Battle Creek Sanitarium. It has not profited or practiced upon the credulity of a gullible public. It stands to-day before the world with every feature of its work wide open for study and investigation, inviting men and women in all stations to come and partake for themselves in what it has to offer. These offerings do not consist of some concoctions, or specifics, or patent medicines, or nostrums, or panaceas of its devising, but wholly and solely of an assembling and setting forth of the various means and forces provided in the laboratory of nature as remedies for disease and as promoters of health. These measures and means

good repair by its owners, and it is hoped that by the middle of June the Battle Creek Sanitarium will be able to take possession. This addition will greatly increase the facilities and capacity of the institution, and will furnish elegant quarters and comfortable equipment for the carrying on of the work. This will be known as the Sanatorium Annex and will be conducted in organization and in its operation as part and parcel of the Battle Creek Sanitarium. A special number of the BATTLE CREEK IDEA will soon be issued setting forth more fully the increased advantages thus brought to our work.

CAUSES OF CHRONIC DISEASES

(Continued from page one)

fever, malaria, scarlet fever, cholera, etc.; and when those diseases came into a community they decimated the inhabitants, often taking away one in ten or more of them.

Medical science has partially conquered

(Continued on page four)

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THE LATEST ADDITION

For some years, especially in the summer season, the Battle Creek Sanitarium has felt the need of larger accommodations for the increasing number of people who desire to come to the institution for the purpose of obtaining the benefits of its treatments and a knowledge of its principles and methods. In later years the problem of caring for the patrons of the institution in such a manner as they expect to be cared for, has become more and more serious until it became perfectly apparent that something would have to be done. What that something would be did not clearly appear until very recently, when a large and fine building erected on adjoining grounds for practically the same purposes, became available.

A fine view of this building is given on the first page of this paper, and other illustrations will follow in succeeding papers.

The view presented this week gives a portion of the beautiful lawn that entirely surrounds this large building, affording a number of acres of the most comfortable, shady, and quiet resting places to be found anywhere. The street car terminus is in front of this building, and the street is nicely paved to this point. The outside walls of the building are composed of the unique granite boulders of a great variety of colors which are found in the surrounding country.

This building is being refitted and decorated, and will be ready for service about the first of June, and we are glad to make this announcement so that any who may be hesitating about coming to the Sanitarium for their summer vacation on account of the crowded conditions which have prevailed for several summers, need hesitate no longer. The efficient corps of physicians, nurses, clerks, and other operators, who have so ably ministered to patients and guests in the past, will be duplicated and proper additions will be made to each house, so that the well-known *régime* of good order and attention, of careful supervision and personal care, will prevail in the "Sanitarium Annex" that has characterized the work in the main

building, and this, too, will not suffer any detraction.

The "Annex" will be under the same control and supervision as the main building, and the new addition will be in all respects what the Battle Creek Sanitarium is now so well known to be,—a quiet, well-conducted home, where the tired and the sick may come and find a helpful, sympathetic Christian atmosphere, and where bodily ailments may receive the very best attention that skill, science and faithful service can give.

A PLEASANT OCCASION

DR. BERTHA E. MOSHIER had a surprise party on Saturday evening. When she reached her home about thirty-five of her patients masked in white drapery were waiting to wish her "many happy returns of the day." After Doctor Moshier had "diagnosed" her patients, they unmasked themselves and Miss Saxe read the following poem, which had been composed for the occasion, and Miss Bishop then presented her with a beautiful bouquet of pink roses:

To Doctor Moshier

WE arrive from all creation
With a serious case of grip,
Or a dangerous complication
Of dyspepsia and the pip;
And we pour our awful stories
In your sympathetic ear,
And you chase away our worries
And eliminate our fear
By prescribing for our troubles
A mechano-Swedish trill,
Or a spray of sparkling bubbles,
Or a sinusoidal thrill;
To our "tum" a fomentation,
And an ice-bag to our head;
To our spine an application
Hot enough to raise the dead;
And our ills depart in vapor,
And we bless the happy morn
When the early daily paper
Had it in that you were born.
And, in case you've no objections,
We would wish you many years,
Intertwined with benedictions
For the smiles you've made from tears.
So we bring this bunch of roses
As a birthday offering now,
And we'll leave it to the posies
To express the "why" and "how"
Of the depth of loving feeling,
Meed of hearts that yield their due,
For the gentle gift of healing
Exercised for us by you.

A cake was then brought in, covered apparently with white icing, around which glowed a fine array of pink candles with the Doctor's initials in the center. The cake proved to be of sawdust and was filled with about forty souvenirs from her patients, mostly handkerchiefs, which were gathered from all parts of the world. Light refreshments were served by Doctor Stoner and Doctor Radabaugh, and an enjoyable hour of social intercourse was spent by the happy doctor and her patients.

Dr. Arthur H. Smith, the celebrated author on China, said in a recent address at the Sanitarium, "Civilization is the outcome of a war which mankind in social organization wages against Nature to prevent her from putting into execution against him her law of the survival of the fittest. Man's life is a war which he constantly wages to keep himself going. Everything tries to kill it, but as long as he keeps himself alive he wins."

CAUSES OF CHRONIC DISEASES

(Continued from page three)

those diseases. We now know how typhoid fever is transmitted; we know the origin of it; we know the cause of all these infections, and we know how to avoid them, and consequently we are not so afraid of them as people once were. But at the present time,

Chronic Disease is the Prevailing Affliction.

Go into any community, and in a large proportion of the families you will find some one or more that is afflicted with chronic disease of some kind. Before going further, perhaps it would be well to define just what health is. You ask a number of people what they understand by good health, and one will tell you one thing and others will give you other definitions; and you will not find it easy to get a good answer.

Carlyle says, "The healthy know not of their health, but only the sick." It is a fact that we fail to appreciate good health until sickness comes, and it is only the sick that can really appreciate the value of good health. Carlyle also says, "The perfection of bodily well-being is seen when the collective bodily activities seem one." In other words, we are not to know by our sensations that we have a stomach; we are not to know that we have a heart; we are not to be conscious that we have a brain, or a head, or lungs; because everything works in such perfect harmony. We are made aware of the presence of these organs when they get out of harmony and produce discord and distress.

That is what good health is, and that is what you are here in this institution to obtain. You need to have harmonious action restored in some parts of your body, so that each part shall work together in harmony in order to enjoy physical well-being. When an individual comes here and some of his organs do not work harmoniously, then we know chronic disease has come in, and we know the cause of it is in the way the body has been treated. John Locke, who lived about three hundred years ago and who was a great philosopher, said that we are to blame for our own troubles, and I think every one of us will admit the truth of that, when we come to analyze our condition and ascertain what has put us into the condition in which we find ourselves.

As to the Causes of Chronic Diseases,

we have a whole series of conditions that are apt to bring lack of harmony in the different organs of the body, and in that way we notice the first manifestations of disease; and chronic diseases creep in so insidiously. With the most of you, you had a little trouble one day, and a little more trouble a few days later, and some other trouble a few weeks later, and finally you came to have what we may term a chronic disease.

The causes of this condition are indeed legion, for they are many. I will allude to a few of them. Heredity is one factor to be considered as a cause of chronic diseases; though we can not blame our ancestors for all our troubles, by any means. Oliver Wendell Holmes said that we are omnibuses in which our ancestors are riding; and we have

traits, no doubt, in our physical being, and also in our mental makeup and in every way, that follow from one individual to another. But we can not attribute to our ancestors very much share in our troubles after all.

When it comes to inheriting actual disease, that has a very limited part in our lives. For instance, there are very few cases in which a person really inherits tuberculosis, although a few years ago it was commonly supposed that tuberculosis was very often transmitted by parents to children. A person may inherit a tendency to tuberculosis, but children are not born with the disease except in very

Result of Early Training

But one cause that is closely related to heredity is early training in the formation of habits. I think that this is one of the principal causes of prevalent diseases. We did not get started right in early life simply because of ignorance or carelessness on the part of our parents; they did not know any better than to reason that they did so and so, and if they did so and so and got along all right, why should not we do the same? And I think that really the secret to a large number of chronic diseases, is in early training and formation of habits. As you know, hab-

its are things that become fastened upon us by daily routine and repetition, so that when it comes to breaking off a habit, we first realize its power, and how firmly it has fastened itself upon us.

uncommon for a patient to say to me that he has been eating meat three times a day. Another thing most people are very apt to indulge in to excess is pastry. While carbohydrates—starches and sugars—are necessary and really form the bulk of the food that is necessary for maintaining the nutrition of the body, yet in form of pastries and cane sugar we find carbohydrates in their worst form for use by the body, because it is the hardest form for the digestive organs to take care of.

Besides, there is irregularity in the habits of eating. There are a great many people



GATHERING SPRING FLOWERS NEAR THE SANITARIUM

rare instances, even from tubercular parents; but they are very apt to become infected with the disease because of carelessness on the part of the parents; and then, besides, there is the inherited tendency.

A Child May Inherit from Defective Parents

more or less defective organs. Such children do not have the vital resistance that they should have in order to combat the ills human flesh is heir to, and this condition is apt to induce disease. The liver is one of the organs that may have a hereditary tendency to disease. We find families occasionally of which almost every member has a sluggish, inactive or torpid liver. That may be a hereditary condition. The kidneys and arteries also are very liable to inherit a susceptibility to disease. Any physician who has made a study of the subject in taking histories of his patients has found, for instance, in a patient suffering with apoplexy, that the tendency to apoplexy was directly inherited. The history of such cases usually shows that one or both of the parents died of apoplexy or some allied disease, and perhaps it extends even farther back, to the grandparents. But, after all, heredity is now considered a factor of minor consequence as a direct cause in producing disease.

its are things that become fastened upon us by daily routine and repetition, so that when it comes to breaking off a habit, we first realize its power, and how firmly it has fastened itself upon us.

Another term that we can use to describe this condition resulting from bad habits, is over-indulgence. For instance, a young man begins to smoke; his father has smoked before him, his friends smoke. Perhaps his father smoked only moderately; but that is no sign that the son is going to be able to do the same thing. The habit is very likely to fasten itself upon him so that he comes soon to an extreme indulgence in it, and he soon finds that it is causing him trouble. The liquor habit is just the same.

Grave Dietetic Sins

are fastened upon us in early life in the same way. There is a whole group of these errors that we find extant almost everywhere we go. Perhaps the first reason for these is that there are very few people who know what we ought to eat in order to nourish the body. I will venture to say that we could go into any restaurant and ask a number of people at the tables what they need to eat to nourish the body, and they would not have any idea whatever as to what the elements are that are necessary for proper nutrition. It is not

who have no set times for their meals; some may perhaps eat three meals regularly, but besides that they eat lunches between times, and they form the habit of eating late at night, and that comes to be a daily occurrence. In that way they are overloading and damaging their digestive apparatus; they are over-feeding the furnace that is to supply the heat and energy to carry on the work of the human body.

Another error in the way of dietetics is

The Use of Condiments.

In that term I refer to salt, pepper, mustard, and the hot sauces that are found on almost every table. These things are not foods; they are irritants, and are used simply because we get accustomed to them and think that without them food has no taste; and many people say they can taste nothing of their foods without them. Give a child that has never tasted pepper, even a small dose of pepper, and it will be a long time before the child will want to take pepper again, simply because the taste of pepper is extremely obnoxious to the person who is not accustomed to it.

Another cause of chronic disease is overwork. That, however, is not a frequent cause of disease of any kind. The fact is that the human body can stand an immense amount

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of work if the body as an organism is properly cared for in other ways. Of course, if a man smokes ten or fifteen cigars a day, drinks three or four cocktails a day, eats an unbalanced ration, and does not get nutrition in the proper proportions, and then works like a steam engine all the time, the body is certainly going to give out; but if he lives properly in other ways, he will have very little trouble with overwork as a cause of disease; but worry and lack of sleep are no doubt the cause of certain diseased conditions, and they are usually conditions in which the blood-vessels, and the brain particularly, have become diseased.

Then, again, we have

Unhygienic Causes of Disease.

By this I mean the improper care of the body as an organism. In the first place, the body needs rest, and it should have it regularly, and should have a sufficient amount of rest. Six to eight hours out of the twenty-four, at least, should be devoted to rest. The amount of time necessary to spend in sleep varies in different individuals. One person may get along with six hours' good sound sleep, and apparently have no trouble. Another individual needs seven or eight hours.

Then, besides the rest and recuperation of sleep, recreation is necessary. When we go on day after day, attending to our work or business, whatever it may be, we tire of that, and if we indulge in some little recreation, we experience new energy, and apparently we get a great deal of benefit simply from that recreation. Coming closer to physical hygiene, bathing, an abundant supply of fresh air, and plenty of sunshine are very essential. These factors act a very important part in keeping the bodily organism working in harmony one part with another.

In our homes, ventilation is a very important thing, and the method of heating should be considered from the hygienic viewpoint. An equable, even temperature should be maintained as closely as possible. This does not concern the men as much as it does the women, because the men are more out of doors, so they get the fresh air; but the housewife who stays in the house the greater part of the time should have an abundant supply of fresh air, and the temperature should be moderate and equable so that it will not have a debilitating effect upon the system in general.

Sunlight is Another Very Important Factor

in the hygiene of the home. I see houses with the curtains drawn during the day, and it seems to me it is almost criminal, because to shut out the sunlight is shutting out one of God's greatest blessings. The reason that sunlight is so valuable is, first, that it keeps the house clean. Nature has given us nothing better than the sunlight to disinfect and to kill bacteria. Besides, there is nothing better than sunshine to make good blood and keep it in good condition. The sunshine increases the hemoglobin or coloring matter of the blood. Sunshine increases the iron content of the blood, and that means that it has increased the power of the blood to carry oxygen.

Statistics show that in the tenement districts

of our large cities, where the buildings are joined one to another for an entire block, and where the sunshine does not gain access to the living-rooms, the people are much more subject to disease than where sunshine has free access to the living-rooms of the occupants.

These are some of the very important things that enter into our everyday lives as causative factors in disease and health.

ARRIVALS

THE list of arrivals at the Battle Creek Sanitarium for the week ending May 7 is as follows: Walter H. Scott, Syracuse; Chas. Wolohan, Mich.; Cora A. Newhouse, Ind.; J. H. Struble, Mich.; Constance E. Tyler, Chicago; Dr. P. W. Tetrean, La.; Thos. Dowling, Fla.; Etta Lieberthal, Mich.; J. H. Bonnell, Grand Rapids; Mrs. W. N. Ferris, Mich.; Dr. G. B. Danelz, Minn.; Mr. and Mrs. N. P. Nelson, Los Angeles; Mrs. Guy Liggett, Willis Parkins, Mrs. M. Parkins and Mrs. Cora Lowders, Neb.; W. F. Straughan, M. D., Ind.; C. W. Pidecock, Ga.; G. W. Roberts, M. D., Miss.; Fred L. Trees, Ind.; Miss Hannah Driscoll, Pittsburg; Mrs. R. W. Delph and Miss Dickie Delph, Ky.; D. E. Gilmore, N. Y.; Mrs. M. D. Laughrey, Henry H. Carter and C. S. Laughrey, Pa.; A. J. Zeller, Ia.; Miss Elizabeth Talbot, China; J. French and wife, Minn.; Mrs. Mary L. Herr and Nettie L. Herr, O.; J. C. Wilson, Kalamazoo; Miss E. Gydings, Fla.; Mrs. M. J. Hood, Chicago; Chandler Wolcott, Rochester; E. H. McCloud and J. C. Burns, O.; Mrs. A. H. Whitmarsh, Ark.; F. W. Bean, Ont.; Mrs. C. D.

Warner, Mich.; Dr. J. C. Clintoek, Kans.; Eleanor H. Belcke, Mich.; H. C. Elliott, Chicago; Caroline Parsons, Kalamazoo; Dr. and Mrs. John L. Davis and Miss Dorothy Davis, Cincinnati; W. A. Johnston, Ont.; Benne Klee, Pa.; Myra L. Barnes, Chicago; Mrs. John W. Jamison, Minn.; L. J. Auger and A. C. Auger, Jr., New York City; C. H. Hanna, Ind.; Albert G. Bonneif, Chicago; W. F. Pitcher, Ill.; D. A. McIntosh, Milwaukee; C. E. Pearshall and Wm. M. Scholl, Chicago; Geo. R. Young, Toronto; Mrs. J. A. Wilson, Kalamazoo; G. B. Davenport, Brooklyn; Wm. Burtless, Mich.; W. C. McCauley, Ky.; Mrs. H. P. Anderson and children, Neb.; Mr. and Mrs. Laufman and Mr. and Mrs. Lytton, Chicago; Nealby Eastham, Tex.; Miss Harder, Chicago; F. B. Colburn, N. Y.; Miss Mary Good, Chicago; Mr. and Mrs. N. H. Westman, Wis.; Jean Haveland, Minn.; W. M. Ward, O.; Mrs. A. A. Coburn, Mass.; Mrs. D. S. Walton, Jr., and Lucy Walton, Conn.; G. H. Schrymer, Cleveland; Miss Cora Meriweather, Ill.; J. Turner and wife, B. C.; Mrs. Lila Fritchie, Ill.; Mrs. W. E. Baldwin, City; A. F. Jerrett, Ill.; A. D. Doaman and wife, Chicago; Chas. W. Shoemaker, Ind.; Geo. W. Pryning, City; H. A. Eberline, Detroit; G. A. Switzer, Boston; J. O. Linder, Ill.; Geo. Gautz and wife, Tenn.; L. Neely and wife, O.; R. Frost, Ill.; Wilfred C. Kellogg, City; Walter Lytton, Chicago; C. M. McCabe, Ind.; W. S. Colgrove, Kalamazoo; W. W. Digby, Toronto; Frances R. McIntosh, Kans.; Mrs. I. N. Shepherd, Mich.; J. Truman Nixon and wife, Okla.; C. H. Lansman, Chicago; W. Walker, Grand Rapids; A. F. Sterrett, Ill.; A. W. Farquharson, B. W. I.; Geo. Schermerhorn,

Mich.; B. W. Lipscomb, Tex.; E. C. Dennis, Chicago; A. C. Holbert and Miss A. E. Brown, Rochester; C. C. Benson and wife, Lansing; Mrs. H. Goldman, Detroit; A. S. Davis, Chicago; Mrs. G. C. Powell, Ill.; Ernest Kellerstrauss and wife, Kansas City; Mrs. M. Eastham, Tex.; G. Barber and O. E. Otis, Mich.; Maud Carlin, O.; Clara J. Perrin and Mary Fillotsin, Mich.; Mrs. G. J. Sterrigger, Ill.; Miss J. D. S. Neely, F. M. Neely and O. E. Chenowith, R. C. Williamson, Detroit.

News and Personals

Mr. and Mrs. Ernest Kellerstrauss have returned to the Sanitarium to continue their treatments.

The prayer service is held daily in the East parlor at 5:20 and is steadily growing in numbers and interest.

Judge P. N. Hickman, of Geneva, Ala., has returned to the Sanitarium, where he is well known, and was warmly welcomed by his many friends.

Mr. Farquharson, of Jamaica, W. I., is spending a few days with his wife and daughter, who have been passing the winter at the Sanitarium.

Miss Constance E. Tyler, who was born in the Sanitarium, and is a staff member of the Associated Press, has been making a brief visit to the Sanitarium preparatory to a European trip.

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.

Among recent arrivals at the Sanitarium are Dr. G. W. Roberts, of Albany, Wis.; Dr. P. H. Tetrean, of Thibodaux, La., and Dr. J. C. McClintock, a prominent surgeon of Topeka, Kans.

Mr. D. A. McIntosh, a railroad contractor of Milwaukee, is a new arrival at the Sanitarium. Mr. McIntosh built quite a large portion of the new transcontinental Chicago, Milwaukee & St. Paul road to Seattle.

The new post-graduate class of nurses started on their regular work May 2. The class includes several graduates from hospitals throughout the country who have entered for a six months' course in Sanitarium methods.

The latest missionary arrivals at the Sanitarium are Mrs. Duncombe, of Japan; Miss Talbot, of the Southern Presbyterian Mission of China; and Mrs. Menges, who is serving under the Christian Board of Missions in Cuba.

Drs. R. H. Harris and Elizabeth Kerr Harris have returned from a five weeks' trip to New York, Philadelphia and Washington. Dr. R. H. Harris took post-graduate work for surgeons during the four weeks spent in New York City.

Other arrivals are Mr. Ely Robisheau, a large plantation owner of Raceland, La.; Atty. Chandler Walker, of Rochester; Mr. A. Z. Zellar, managing editor of *The Tribune* of Sioux City, Ia.; Mr. Freer L. Meyer, president of the Kokomo (Ind.) Trust Company.

Mr. Fred Butler, of New York, the noted bass soloist, is expected to give a recital on Saturday evening in the gymnasium. Mr. Butler has sung in the Sanitarium on previous occasions and delighted his hearers with his unusual talent. Mr. and Mrs. Butler will spend a few weeks at the institution, and we hope to hear from them often.

On Tuesday evening a piano recital was given by Mr. Bendetson Netzorg in the gymnasium. The audience was large and enthusiastic. This was the last appearance of Mr. Netzorg for this season. He is an artist of great promise, a native of Battle Creek, who has recently been graduated from the Conservatory of Music in Paris.

It is the intention of the Sanitarium managers to open the villa at Gogua Lake early in next month. The place will again be under the management of Mrs. Hoag, who has given such good satisfaction as matron in the past. The place will be held open for the accommodation of guests and helpers who may require a quiet resting place for a few days.

Mrs. Dr. Stewart is leaving for a trip to California, where she will visit Dr. Winegar-Simpson, formerly of the Sanitarium staff, who is now in charge of the Long Beach Sanitarium, California. She will be present at the commencement exercises of her brother, who graduates in medicine in Portland, Ore., after which she will visit relatives in British Columbia.

Doctor Mortensen lectured in the parlor on Tuesday evening to a large and interested audience, who much appreciated his valuable information upon "The Causes and Prevention of Chronic Disease." The Question Box on Monday evening was conducted by Dr. A. J. Read; and on Wednesday evening Doctor Riley lectured on the "Causes of Insomnia."

Recent arrivals are Mr. Thomas Dowling, of Live Oak, Fla.; Mr. Chas. C. Harder, a well-known business man of Chicago; Mr. and Mrs. A. Van Allst, of Calgary, Canada. Mr. Van Allst is a real estate broker and has been a long-time vegetarian. Also Mr. C. W. Collins, retired railroad contractor of Brooklyn, and Mr. J. E. Ratcliffe, a well-known glass manufacturer of Wheeling, W. Va., who has recently retired from business and is taking a course of treatment at the Sanitarium.

A lady physician who was present at the Medical Missionary Conference held at the Sanitarium last January, writes: "I am glad to have the memory of the Conference to carry with me to India. It will be an inspiration for many a day's work. I am not a medical missionary, but have done medical work ever since I landed in India. The people come to us and trust us more than the doctors of that country."

The monthly Helpers' Meeting was held in the chapel on Tuesday evening. There was a large number present. The first speaker on the program was Miss Caroline Parsons of Parsons' Business College, Kalamazoo, whose subject was "The Sanitarium Nurses from a Patient's Point of View." The next speaker was Mr. Jameson, who has been doing evangelistic work in Mexico and the Southern States. His subject was, "The Sanitarium from a Helper's Point of View."

The Domestic Science School, of which Miss Lenna F. Cooper has charge, received a visit from the senior class and faculty of the Western Normal College of Kalamazoo on Tuesday last. They visited all the departments of the Sanitarium, especially the culinary and housekeeping branches, and the laboratories and class rooms. They expressed themselves as much pleased with what they saw, and surprised at the extensive laboratories and facilities for practical experience.

On Friday evening, after the song service in the lobby, the Christian Endeavor meeting was held in the chapel. It was the monthly consecration meeting, and was led by Miss Hostetter, the subject being, "The Story of Ruth." There was a large attendance and an especially earnest spirit prevailed and a large number took part in the meeting. A beautiful solo was rendered by Miss Jackson, who was accompanied by Mrs. Farquharson on the piano, and her daughter, who rendered a violin obligato.

On Tuesday evening, the 16th instant, the Sanitarium family are to have a musical treat by several ladies from Bay City under the leadership of Mrs. Myrtle H. Eades, of that city. The ladies who compose the quar-

ter are from the best social circles of their city, talented singers, though not professionals, and we are assured that the entertainment will afford peculiar pleasure to those who listen to their singing. Mrs. Eades is a pianist of unusual talent, and will give one or two numbers. The concert will be given in the gymnasium.

There was a large delegation from the Sanitarium in attendance upon the Michigan State Nurses' Association meeting in Jackson last week. Mrs. M. S. Foy, superintendent of the Sanitarium nurses' department, gave an excellent report of the State Federation of Women's Clubs, which was held in the city of Battle Creek last October. This report was well received and much appreciated. The County Medical Association of Jackson extended every courtesy to the nurses, giving them a reception the first evening of the conference and an automobile ride around the city on the second day, when the various points of interest were visited.

In April and October of each year a new class is formed for the Sanitarium and Hospital Nurses' Training School. The class formed last month now numbers about thirty, and there are several others who will yet join the class. These young people come from different parts of the country and, like their predecessors, comprise a fine and intelligent company of students, impressed with an earnestness of purpose to be of use in the world of suffering. The class will have a social evening at the home of Pastor and Mrs. Tenney on next Saturday evening, it being their custom to invite each new class to their home to enable the students to become more closely acquainted with those whom they have met as strangers, but with whom they are to be intimately associated for a three years' course of training.

On Sabbath morning Mr. W. S. Colgrove, of the Kalamazoo City Rescue Mission, spoke in the chapel. The audience was deeply interested in his earnest discourse. Dr. Clifton Dodd spoke in the parlor in the afternoon, his subject being, "The Laos, a People Older than the Chinese." He described the Laos people and gave an outline of their history from 2200 B. C., this being their earliest record, though they are really much older than that date, and even then they were a great people. The first mention of them as Laos people was the time Moses was thirteen years old, and Laos then became their name, which has been retained. The Shans of Burma and the Siamese are modern representatives of the old Laos stock. The speaker gave a bird's-eye view of mission work among the Laos people in forty-three years, and remarked that by a singular coincidence there were just forty-three missionary workers among the twelve to sixteen millions of people. There is a self-supporting medical work in each of five stations, with hospitals and dispensaries of various sizes and equipment, including a special work for lepers. The Laos language has been reduced to print by missionaries, and the press in Chiengmai, which brings in annually \$3,000 in receipts to the Board, is the only press in the world which prints the Gospel in the Laos language.

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CAUSES AND PREVALENCE OF CHRONIC DISEASE

From a Lecture in the Sanitarium Parlor,
By M. A. Mortensen, M. D.—Hered-
ity, Habit, and Personal
Hygiene Are Factors

I do not need to spend any time convincing you of the prevalence of chronic diseases. They are too much in evidence. We find that they are more prevalent in cities than in the country. This fact is probably due first of all to faulty hygiene in the homes; it is due also to the competition that individuals have to wage in large cities, in business; and another thing is the habits of eating, also irregularity in obtaining rest and recreation; and in our large cities the question of morality plays a very important part in the cause of chronic disease.

In my recent visit to Europe, I attended the clinic of

Professor Krauss in Berlin.

He is considered one of the greatest clinicians in Germany and is a very able man; and he said that it would be the greatest possible blessing to Germany if a law could be passed forbidding cities of above 100,000 inhabitants. He claimed when they get beyond 100,000 they should go somewhere else and build another city, because statistics show that when a city gets above that point of population, then the question of chronic diseases and efficiency in that collection of people becomes more critical; diseases become more frequent, and efficiency diminishes, for various reasons. The first reason is that a city larger than that becomes a dumping ground for an undesirable class of people, and they simply permeate the whole city, immorality increases, drinking increases, and all the great factors in pulling down or tearing to pieces the health and morals of individuals become much more prevalent.

Another thing is that when a city gets above 100,000 inhabitants, or even before it reaches that figure, there is less restraint. In a small city there is more restraint from social considerations; a man is afraid of what his neighbors will see, or that they will find out his misdeeds and will not think well

(Continued on page three)

TAKEN FROM THE QUESTION BOX

Sundry Queries Propounded by Patients,
with Ready Responses by the San-
itarium Superintendent

Q. Is bees' honey a healthful food?

A. It is a splendid food for bees. It is not the best food for human beings. It is not the best form of sweet. It is better than cane sugar, however, because it contains all



PROF. T. PAWLOW

the properties of the sweet juices of plants, whereas cane sugar does not. Cane sugar is a crystalline sugar, and there is no lime present; and it also requires digestion, and is an irritant to the stomach. The sugar of flowers is fruit sugar, and the bees gather this fruit sugar and deposit it in little cells. If they did not do anything more, it would be the most perfect of all sugar, but unfortunately bees, like flies, are not altogether tidy. They do not use the doormat before they come into the house; and they gather up more or less

(Continued on page six)

SOME NEW IDEAS ABOUT DIGESTION

A Visit to Professor Pawlow's Laboratory
in St. Petersburg, Where Strange
Truths Have Been Discovered—
Lecture by Doctor Kellogg

PRIOR to ten years ago we really knew very little about the subject of digestion. It is only since the publication of the results of researches and experiments made by Pawlow, the great St. Petersburg physiologist, that we have understood what digestion really is. Pawlow has discovered more than all that was previously known about the processes of digestion. I shall tell you something of these discoveries to-night.

Four years ago I spent some weeks in his laboratory. When he found me interested in his work, he very kindly turned his laboratory over to me, and instructed his assistants to repeat for me the experiments which have made him famous, and which have thrown so much light upon the subject of digestion. I came to know Professor Pawlow quite well; and he is

One of the Most Delightful of Men.

He is about sixty years of age. He received a few years ago the Nobel prize of fifty thousand dollars, which is given every year to some one who has made the greatest and most valuable discoveries in special lines.

Mrs. Pawlow told me that her husband had very little property, that he was not worldly wise. She said he was not a good business man, and the fifty thousand dollars he received was the compensation for his life effort, for his salary from the Russian government is barely enough to support him. Mrs. Pawlow said that her husband is simply a big boy who loves his laboratory and his work, and he cares nothing for money.

Professor Pawlow's work and experiments are carried on largely by the use of dogs. A dog has two operations performed upon him. One operation is to make a passage from the stomach through the skin, so that the secretions of the stomach can be collected. And the other is an operation by which the esophagus discharges the food outside the throat instead of into the stomach.

It was formerly supposed that no secre-

tion of gastric juice occurred until some time after the food had been received in the stomach. He found that instead of this being true, the secretion of gastric juice begins before food enters the stomach, even before food has entered the mouth. In the experiment, the dog would chew the food and it would pass back into the dish through the opening in the esophagus; he would chew it over again, and would continue chewing in this way for hours, his appetite increasing all the while.

Pawlow's Observations

Pawlow noticed that when the dog had been chewing a few moments, the gastric juice began to pour out of the stomach. This is what he called appetite juice. And it was

der this arrangement come to the surface, so that they are right in contact with the substances which have the flavors of the food. These delicate, jelly-like masses are extremely sensitive, and if they projected upon the surfaces of the tongue would be very quickly injured; but they are hidden away down in this little groove in which the fluids of the mouth settle, and there these taste-buds can be exposed right upon the surface so that they can come in contact with the food substances which may enter into solution.

The Stomach Notified

Professor Pawlow has shown that when food is taken into the mouth and is chewed so that the properties can be detected and tested by these taste-buds, messages are

example, that when meat was brought near to the dog so that he could smell it, immediately the saliva would begin to pour out of his mouth, and within two or three minutes the gastric juice would begin to pour out of the stomach also. He found that even the presence of the keeper who fed the dog was sufficient to cause the dog's mouth to salivate and the gastric juice to flow from the stomach.

The same thing happens to us when we come into proximity with a good dinner when we are hungry. But it depends upon the appetite. Pawlow observed that when the dog was offered something which he did not like, it did not cause a flow of saliva, it did not cause the gastric juice to pour out. One dog was very fond of bread, and when he saw bread, the saliva would pour from his mouth,



SANITARIUM MAIN BUILDING

found that this so-called appetite juice was very strong gastric juice, had very powerful digestive properties, indeed, the most powerful gastric juice is that which is formed before the food enters the stomach. Pawlow observed that the stimulation of the nerves of taste is all that is really required to produce this outflow of gastric juice.

Some of you perhaps have noticed on the back of the tongue some large papillae that project quite prominently above the others. There are twenty or thirty of these papillae, known as the *papillae circumvallatae*. They are called circumvallate because there is a little valley or furrow which surrounds each papilla.

The purpose of this trough is to receive the fluids of the mouth which contain in solution the sapid substances of the foodstuffs. This liquid runs down into this little trough, and here are wonderful taste-buds, each one of which is the expanded end of a bunch of nerves. And in this little bud there are thousands of delicate nerve filaments which un-

sent along the nerves into the brain, telling what sort of substance is in the mouth, and what is needed. If, for example, dry substances are taken into the mouth, then the message sent to the brain is that saliva is needed, and a large amount of saliva is poured out into the mouth to dissolve, if possible, this dry substance, or to render it moist so that it may be swallowed. If saccharin or bitter or acid substances are taken into the mouth, they also cause a very abundant outflow of saliva. When starchy substances are taken into the mouth, the saliva is poured out in greater abundance for the purpose of digesting this starch.

Both the Mouth and the Stomach Water

One of the very remarkable things observed by Professor Pawlow was that it was not even necessary that the food should be put into the mouth in order that these reflex signalling actions to the brain and to the stomach should take place. He found, for

and the gastric juice would pour from his stomach; and when he saw meat, he paid no attention to it; there was no saliva and no gastric juice. Another dog's stomach was stimulated by meat, and produced gastric juice by the mere sight of the meat, or the smell of it.

The experiments of Professor Pawlow show that music has the effect to stimulate the flow of saliva and of digestive fluids. A very intelligent and sensitive dog was in a room with his keeper, and we entered the room. Everything was quiet, and the dog was standing there with a little tube attached to a duct from his salivary gland, and connected to a bottle. Suddenly the keeper, with a very slight movement of the foot, released an air current which produced a very high musical note. Within five seconds the saliva began to trickle down from the dog's mouth, and within fifteen seconds a stream of saliva was pouring down as the result of the stimulation of this musical note.

That is

Why We Have Music in the Dining-Room

at dinner-time; we hope it may have some influence to charm away the dyspeptic demons that are haunting about.

Pawlow's dogs are healthy, hearty-looking dogs, and they enjoy life apparently as much as any dogs you ever saw; and they were always glad to see the keepers. I was interested in noticing that Professor Pawlow was particularly popular among his dogs.

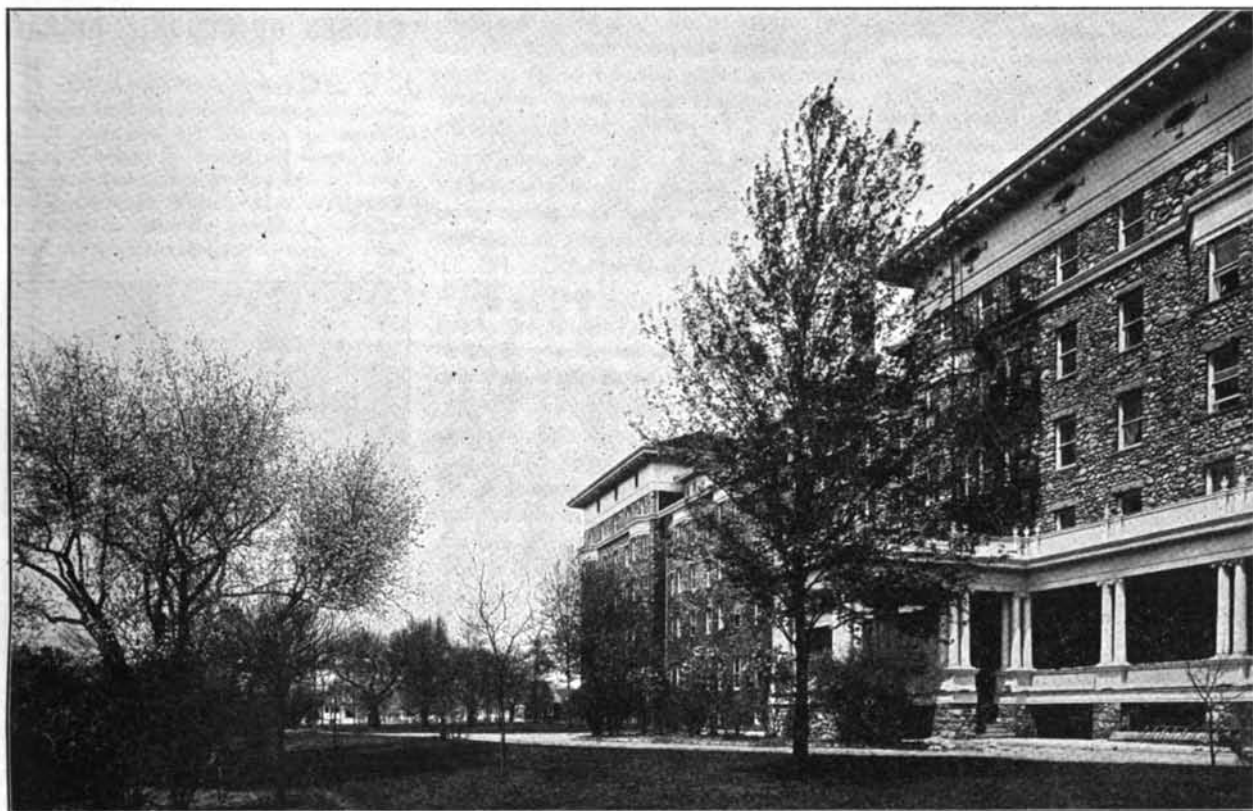
How the Stomach Works

Thus we know some things now about digestion that we did not know before. For example, it has been found that the digestive work is done almost entirely in the upper

tact with the mucous membrane at that point, it causes the pylorus to open; and when it gets through the pylorus into the duodenum, as the acid comes in contact with the duodenum, it causes the opposite thing to occur—the pylorus is reflexly closed. So here is an automatic arrangement by which the pylorus is opened and then closed.

Formerly the pylorus was supposed to exercise an intelligence of its own, but we know now that the whole thing is operated through the medium of the gastric juice itself. The nerves of the mucous membrane of the stomach are so constituted that when the acid liquid comes in contact with them, they cause the pylorus to open; but the same acid liquid passing down a few inches into the duodenum comes in contact with nerves which

mouth is air; but sometimes the contractions are so forcible that some of the liquid of the stomach will be forced out into the mouth also, and found to be very sour and acrid, and the person thinks fermentation is taking place in his stomach. It is not fermentation at all; it is simply hyperacidity, and the only thing that is necessary is that this acidity should be relieved. It generally can be relieved by drinking a quantity of hot water. That is the reason we advise patients to take water a couple of hours after meals, and when the acidity is very great it does no harm to take a small amount of bicarbonate of soda along with the hot water, and this will neutralize the gastric juice so the pylorus will be opened up and the difficulty will be relieved.



SANITARIUM ANNEX

part of the stomach, where the food is received. The food passes down the esophagus, or swallowing tube, and is deposited in the center of the stomach, then gradually works out to the outside walls. The outside of the mass comes in contact with the mucous membrane and with the gastric juice, while the inside of the food mass is still in contact with nothing but the saliva. The salivary digestion is taking place inside while the gastric digestion is going on outside.

As the food is gradually dissolved by this contact with the digestive fluids, it becomes liquefied and passes on into the lower part of the stomach, which acts as a sort of ejector. When the liquid portion reaches the pylorus, that part of the stomach contracts like the bulb of an atomizer, and the liquid is forced out through the pyloric sphincter. And as the liquid food, which is highly acid, comes in con-

when stimulated by the acid liquid, cause the pylorus to shut.

When a person has highly acid gastric juice, this closing effect is too strong. The pylorus would naturally open freely, but when the acid liquid reaches the duodenum, which is adapted to alkaline fluids like bile, or the pancreatic juice, it has the effect to cause the pylorus to shut up so tightly that it will not open again readily. Then, as the stomach contracts and makes an effort to force the liquid contents out, and the pylorus will not relax, the result is the stomach, contracting with greater and greater vigor, forces some of its contents up into the mouth.

In the top of the stomach, when digestion is going on, there is always a little collection of air, which is swallowed with the food and rises to the top of the mass of food. Usually the only thing that comes up through the

CAUSES OF CHRONIC DISEASE

(Continued from page one)

of him; so there is a certain restraint that is present in the smaller communities where people are known and are always in the eyes of their neighbors, while in the larger cities they are drowned in the mass of humanity, and no one observes or cares for them; and in that way that restraint is entirely lost in the large cities.

Sanitariums the Result of Disease

One result of the prevalence of chronic disease is seen in the existence of such institutions as this. The physician in private practice knows well enough that the individual who is afflicted with chronic ailments of

(Continued on page four)

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SQUANDERED CAPITAL

THE country abounds with people who in former years had more or less of a competency in the goods of this world; at least they were in comfortable circumstances and position, and looked forward to a pleasant future and a comfortable old age. But now they are stranded; their wealth has disappeared, their bright prospects are all blotted out, they look forward with fear and trembling to a helpless old age that may have much of privation, and is likely to find them helpless and dependent upon others.

Ask them what brought about this change in their circumstances, and they will say that some one deceived them; somebody took advantage of their kindness, or their credulity, or they made some bad investments and were disappointed in the outcome of what they hoped would be greatly to their advantage; or, perhaps, some will honestly confess that they were so foolish as to thoughtlessly spend their money upon unprofitable things, and before they were aware of it it was gone. The money came to them easily, and they seemed to have an abundance, and did not realize how they were wasting it until they awoke to the startling fact that it was all gone, and they were left to struggle on through the rest of their lives or go under.

The very best heritage or capital any one ever possessed is good, robust health. But it is not a thing that will stay with us any more than money will stay, unless we take pains to conserve it. Good health may be squandered as easily as a fortune. A young man or young woman, starting out with a vigorous constitution and with a complete outfit of physical and mental qualifications, can easily bankrupt himself or herself in a short time, and appear before their friends a mere wreck. Ask these people what they have done with their health. O, they have fallen into bad hands; they have been misguided by associates; they have been cheated by specious promises of pleasure that did not produce the expected results. Perhaps they will own up that they themselves are to blame—that they have been prodigal and wasteful of their resources, have spent their strength

and labor on that which brought them no good returns; and that they fancied they had an unlimited stock of health and endurance, and did not find out their mistake until the entire stock was exhausted and they found themselves physically bankrupt and paupers. Gladly would they regain their wonted and natural force and health, but it is gone no more to return, for a store of health once thrown away can never be fully recovered.

One may in some measure repair his fortune after it has been taken away, and so a man may measurably win back his lost health, but he has a hard fight before him, he has backsets and adverse conditions to meet, he must patiently and continuously strive, and perhaps he will regain his footing again, but he never will stand quite so firmly and securely as at the first.

It is enough to cause a shudder to listen to those who say, "I can eat anything under the sun; I never know I have a stomach; drinking does not hurt me; tobacco never did me any harm; my habits are not telling on me any," etc. Just as well might a man who has ten thousand dollars in the bank, and has no other capital, declare, "I don't see that it makes any difference with me how much money I spend; the banker never has protested my checks; I can get all I want, it does not seem to affect my account any."

There comes a day, though, when his cheeks come back dishonored, marked, "No funds." And just as surely there is coming a day when the physical spendthrift will be painfully aware that he has a stomach, and several other things that he did not seem to know about. By and by these faithful servants will protest, and when they say, "No funds," there comes a halt.

A MODERN IMPROVEMENT

THE latest improvement to the Sanitarium facilities is in the form of a refrigerating department located in the basement of the main building and occupying rooms which contain over 17,000 cubic feet, affording ample room for six carloads of fruits and other produce. The refrigerating plant is known as the absorption system, and is one of the most improved and modern plants in vogue. It was installed by the Carbondale Machine Company of Pennsylvania at a cost of about \$5,000. The initial cost, however, constitutes the bulk of the expense, because its operation involves no waste. The retort having been once charged with aqua-ammonia requires no replenishing for two or three years. The liquid is a very strong saturation of ammonia, and by steam from the house heating system is evaporated into gas. This gas, after being dried, passes on to the condensers, where it is condensed into liquid ammonia similar to liquid air. It is then discharged into a brine cooler containing iron pipe coils through which the brine is pumped, reducing the brine to any temperature required, even

to thirty degrees below zero. The brine then passes through iron pipe coils in the storage rooms and gives off cold to any reasonable degree desired. The ammonia is then returned to the starting point in the form of aqua-ammonia and again goes through the process. The heat employed in heating the water for the condensing of the ammonia is obtained from the water which passes into the hot water system, and is utilized in the treatment rooms; so that from first to last there is the most absolute economy secured in the operation of the plant, which promises to give the very greatest satisfaction and to be of very great utility in preserving in a perfectly fresh state the fruits and other foods consumed on the Sanitarium tables.

CAUSES OF CHRONIC DISEASE

(Continued from page three)

a serious nature has a hard fight to recover his health. He can not get the individual away from the causes of that ailment; he tries, but the patient goes on and does just the same as he has been doing, and the doctor makes no headway. But if he can get the patient away from his environment into a



PAWLOW'S DOGS AND THEIR KEEPER

new routine and have something done for him every day, the chances are that he will improve; so sanitariums are built, and in the course of a few years the number of sanitariums has increased wonderfully. At the present time, in Germany there are over thirty-five large sanitariums, and a great number of smaller ones that have been established for the treatment of chronic diseases; and the same is true in this country.

What Are Some of These Chronic Diseases?

I do not need to tell you; but one of the first and most common is nervous exhaustion. Nine people out of ten who come to this Sanitarium have more or less of that trouble. Nervous exhaustion is simply an indication that the individual has used his body irrationally; we may say, has abused his body in some ways, has repeatedly injured his nervous system, so that finally it can not react, and he can not control it; numerous nervous symptoms appear, and finally the patient adopts all the symptoms that are going, so that if he hears of a symptom he had not felt before, he immediately proceeds to have that symptom. Hysteria comes in the same class

with nervous exhaustion. These diseases are not produced by organic changes in the nervous system as a part of the organism, but the nervous function is interfered with; it does not act as it should, the control is not there, and the vital force is not there, so that all of these symptoms appear in different individuals according to which part of the nervous system is especially affected.

The next most common condition perhaps is digestive disturbance of various sorts. Digestive disturbances, as you all know, are very prevalent, and those of a chronic type nearly always are due, or have their beginning, in improper feeding. This pertains both to the manner of eating, that is, to hasty eating, bolting of food, and to the improper proportions of the different food elements or combinations of the foods. These conditions, as a rule, are at the bottom of organic digestive disturbances, so far as the intake of food is concerned.

Then the next most important thing is lack of attention to the bowels; that is, constipation. Some time ago I made an extended study of this matter; and of every patient that came to me, who had any of these chronic digestive disturbances, I would make inquiry as to what was the beginning of it, and I would make special inquiry with reference to constipation, going back even for years, and I would almost invariably find that the beginning of the trouble was constipation. So I conclude that improper eating and lack of attention to the evacuation of the bowels are probably the two most important factors in the cause of chronic digestive disturbances.

Arteriosclerosis

Of course, there are other things that may cause special diseases of the digestive organs, but these that I have mentioned will cover the great bulk of these troubles. Then the next most common trouble is probably a condition that comes on in old age that we call arteriosclerosis. We have heard it stated time and again that we are as old as our arteries. That is very true, and at this time it is startling to see how many people are dying of arteriosclerosis. If you watch the newspapers from day to day you will notice there is hardly a day but you will find a report of this man or that man dying suddenly. Almost invariably you can put it down that that man died because of hardening of the arteries, and the cause of that hardening of the arteries lay in his habits of life in the past.

This same Professor Krauss of Berlin, to whom I have referred, while lecturing one day on the causes of arteriosclerosis, said that there was just one word that would tell the whole story, and that was the word "over-indulgence," because, he said, nearly every one who has hardening of the arteries is guilty of one of five things: First, the excessive use of tobacco. He puts that first of all the bad habits. The next is excessive use of liquor; next is overeating; and the next is sexual indulgence. He referred to that especially with reference to syphilis as a cause of this degeneration of the arteries. He said those were the things that were causing arteriosclerosis.

Right in connection with arteriosclerosis we have Bright's disease, for in the advanced

conditions of arteriosclerosis there is always degeneration of the kidneys. Whether we call it Bright's disease or not does not make much difference. Of course, there is a type of kidney disease where the arteries themselves are not involved, but where there is a very marked degeneration of the arteries there is always more or less degeneration of the kidneys which usually runs parallel.

I will now speak about the

Remedy for These Conditions

of chronic disease that are so prevalent in civilized countries, and I will say that the first great remedy that we have is to educate the people. And we ought to start by educating our children how they should live. They should be taught how to care for their bodies, how to preserve harmony between all the organs of the body, and in that way maintain good health. And we should impress upon them the value of good health, for a child that is bubbling over with health has no conception at all of what sickness is. And if the child has a slight acute attack of some kind, that is past in a short time, and he forgets about it. But we should try to impress upon the children the value of good health and what it means to them in later years. I do not believe it was God's intention that when a man get to be fifty or sixty years of age he should feel decrepit and that he is in his decline; because if he lives right he ought to be able to live till he is threescore years and ten, and not know that he has got that many years behind him.

Then with that education there should come the practicing of what we call "the simple life." I do not know that I should dilate on that, because you hear about that so often; but the simple life in every way applies to all our habits and surroundings. Perhaps one of the most important phases of the simple life is with reference to habits of eating.

I have not the time to go into the details of ordinary life; these are always being held up to you here. I hope that every one who comes to this institution will go away with some of the important points with reference to how to live the simple life. And not only for their own benefit, but also for those around them; because the fact that we have in our country and in every civilized country such a mass of people that are crippled and are inefficient, are not what they ought to be physically, means a great deal to the nation, and to civilization in every country. It does not make any difference where we are, in our own or other countries,

It is Incumbent Upon Us

to try to increase the efficiency of the community and of the individual.

The German nation is taking the lead along this line. They are instructing their people everywhere as to how they should live, how they should eat.

When people do things that they ought not to do, of course they must expect to reap exactly what they sow; but it is a sad thing that so many have to reap because they sowed in ignorance. If a man sows in ignorance, the harvest is just as sure, and the man is to be pitied; but the man is not to be pitied so much if he sins presumptuously, and he has to reap.

We hear it time and again, "Well, what is the difference? I have done so and so, and this man has done so and so, and he is all right." But sooner or later the reaping time will come. We can not say that because a certain man used tobacco, tobacco is good for the human race, that it does not do anybody any harm; or make the same claim for liquor, or over-eating. A man might as well argue that war does not do anybody any harm, because there is a man who went through so many battles, so many

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 " "
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THE BATTLE CREEK SANITARIUM AND HOSPITAL TRAINING SCHOOL FOR NURSES

offers exceptional advantages to those who contemplate taking up the Nurse's profession. A Three-Years' Course is offered to Women, and a Two-Years' Course to Men. Over two hundred Nurses are employed in the institution.

The demand for Nurses who are trained in the Sanitarium principles and methods is constantly increasing, both in the institution and outside. A good salary awaits those who finish the course.

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SANITARIUM - - Battle Creek, Mich.

years' war, and he came through it all right; he is still alive. For if the man who does these things escapes, his children will reap what he has sown.

QUESTION BOX

(Continued from page one)

dirt on their feet, and get dust on their fuzzy bodies, and, of course, some of this gets into the honey; also some of the pollen, and some of the essential oils of the plants; and if the plants happen to be poisonous, then some of these poison flavors are put into the honey. Then there is another thing. The bee has a poison bag as well as a honey bag. I remember that very well from an experience I had when a boy. I was exploring a bee, and I discovered the poison bag and thought it was the honey bag, and that little drop of nectar which I touched to my tongue made me so sick I did not get over it for a good many years, and was not able to take honey without being made sick by it. This is formic acid, which is a very irritating and poisonous substance, and is a powerful disinfectant. The chief use of the poison bag is to secrete formic acid to preserve the honey. The bee adulterates the honey with antiseptics. The United States government prohibits the use of antiseptics without putting a label on the package, but the bee violates the pure food law. When he gets the little cell filled with honey, he puts a minute speck of formic acid out of his poison bag down into that cell so the honey will not ferment. Some people are very susceptible to this formic acid, and the small amount of it that the honey contains is enough to make them ill and cause a breaking out of a nettle rash,—the same rash one gets when stung by the nettle, and that is formic acid also.

Q. Are multiple neuritis and locomotor ataxia curable diseases?

A. Multiple neuritis generally ends in recovery if the patient does not continue to cultivate it. Poisons absorbed from the intestines poison the nerves and set up irritation. If the patient will cease to do evil and learn to do well, he will get well of neuritis if he does not do another thing. The curative power in the body will heal him. The most important thing is to cease to do the things that make multiple neuritis. Locomotor ataxia is a much more serious trouble. It is due to a degenerative process of the spinal cord. This degenerative process may be checked. I have seen it done in a great many cases, even when the gait had become so bad that the patient could not walk straight at all. By a proper system of gymnastics, training the feet to walk straight without any deviation at all, the gait can be reacquired, so that a symptomatic cure may be accomplished and the patient may be relieved of all inconvenience.

Q. What is the primary or underlying cause of trifacial neuralgia, or tic douloureux?

A. There are several causes for it. I remember very well a lady who came here some years ago suffering terribly from this disease. The nerve had been cut on one side,

and a portion taken out. She was no better. The doctor went further and cut away a portion of the jaw in order to cut out a part of the nerve down in the jaw. She was no better. Then it was decided it must be the teeth, and they pulled all the teeth on one side and then on the other side of the jaw, and still she was no better. She had a very badly coated tongue and a very foul breath, and suffered most excruciating pain every day of her life. I am glad to be able to say that in three months the lady went home well, and has been perfectly well ever since, and no surgical operation of any sort was required. We simply corrected the condition of the alimentary canal, by putting her on a clean, wholesome dietary, and she recovered. Every case, perhaps, may not be curable. There are certain cases in which the trouble is deeper in the brain, and something must be done there, and such a case requires surgical procedure.

Q. Can asthma be relieved?

A. Asthma, that is, the spasms of the bronchial tubes, can certainly be relieved. Hot applications to the back, chest, and legs particularly, are generally helpful and effective in giving temporary relief. The cause must be removed, and this cause is generally found in the colon. The bronchial tubes are irritated by poisons absorbed from the colon which are eliminated from the lungs.

Q. Should hay fever patients be restricted to a special diet?

A. Yes, an antitoxic diet has a very great advantage for the hay fever patient, for the reason that when a person has hay fever his

resistance is lowered. If he takes a diet which produces auto-intoxication, the resistance is lowered still more; so he is increasingly subjected to this aggravating disease.

ARRIVALS

THE guests whose names appear on the register of the Battle Creek Sanitarium for the week ending May 14 are as follows: Mrs. Chas. McCabe, Ind.; Miss Marguerite Steele, Mr. and Mrs. F. R. Steele and Miss Blanche Brown, Va.; Mrs. M. Gois, N. Y.; R. G. Zahule, Toledo; Harry F. Gee, Kans.; R. E. Poole, M. D., Pittsburg; John Grau and Emma Grau, Mich.; Carroll Smith, Africa; J. H. Cook, Pittsburg; Mrs. R. Treblecock, Mich.; Mrs. Arlene Mead and Miss Alice Hock, Detroit; W. E. Russell, Wash.; Mrs. Geo. H. Lee and W. R. Scott, Va.; E. C. Ebersson, Ia.; H. H. Anderson, W. Va.; Mary C. Wells, O.; Chas. Wolohan, Mich.; Mrs. F. T. Blossom, Cleveland; Docteur R. de Puyselau Fournier, Paris; Wayne Hursley, I. N. Shepherd, Mich.; E. N. Sanctuary, Tex.; Wm. Burtless, Mich.; Mrs. Webb, City; Mrs. C. S. McInney, N. J.; Miss Elizabeth Porter, Ky.; Mrs. Margaret Bliss, Chicago; Mrs. N. E. MacManns, New York City; Dr. A. G. Henry and wife, N. Y.; John Hoffa, Pa.; W. P. Hardy, Ala.; Albert Wise, O.; C. H. Spear and wife, Vt.; Mrs. H. A. Macy and Mrs. Chas. McDonald, Ill.; Frank L. Norris, N. Y.; W. J. Powell, M. D., and Chas. Beckringer, O.; J. H. Dawling, Fla.; Dr. and Mrs. J. L. Chassell, S. Dak.; C. H. Benedict, Mich.; Miss Josephine Morgan, Mo.; Mrs. L. Ehaschow, Ind.; Mrs.

Josiah R. Smith, O.; Mrs. W. Ashmore, Chicago; Mrs. Lorain Tinman, Grand Rapids; Henry E. Bourke, Okla.; H. D. Harding, Indianapolis; Mrs. B. Herbert, O.; J. L. Snively, Ill.; B. S. Allison, W. Va.; L. C. Whitney, Conn.; Wm. Bohning and wife, Tex.; Miss T. M. Goodwin, Grand Rapids; Miss Blanie, Mich.; Dr. A. B. Kenworthy, England; Jas. W. Barnhill, O.; Fred Butler and wife, New York City; G. R. Badgerow, Ia.; Mrs. O. G. DeCamp, Mo.; Richard I. Wyche, New York City; Mrs. Geo. B. Wilson, Cincinnati; Mrs. L. C. Peall, Arthur C. and Frank Peall, Ga.; L. E. Dean, M. D., Mo.; Mrs. W. M. Murdock, Ill.; Lewis A. Abdill, Ill.; A. H. Whitmarsh, Ark.; T. Wilcox and wife, C. Layton Ford, Mrs. Ford and Helen Ford, Ontario; Schuyler Rose, Ind.; Alice R. Delaney and Rose Burns, Ill.; F. W. Rogers, Wis.; Mrs. W. B. Hayden, N. Y.; Cotter Allen Hayden, New York City; A. Betteridge, Cuba; Henry R. Harrower, Chicago; R. J. Huston, Ia.; Jas. C. Graves, Mich.; H. C. Landon, O.; Reuben Treblecock, Mich.; Sue Gregory, S. Dak.; J. C. Donnell and F. M. Barnhart, O.; Elizabeth Schermerhorn, Mich.; Mr. and Mrs. F. W. Piteher, Mass.; Reynolds Smith, Detroit; C. H. Laufman, Chicago; Geo. Schermerhorn, Mich.; Forman Field and Mrs. Field, Kansas City; B. L. Burnap, Chicago; Mr. and Mrs. R. G. Brown, Minneapolis; S. D. Neuring and C. J. Schmidt, Ind.; Mrs. Geo. W. Ridgley, Mrs. H. M. Reed and H. M. Reed, Geo. W. Ridgley and M. Beckett, Ohio; W. F. Pitcher, Ill.; J. L. Otterholt, O.; Carlos F. Galan, Mexico; Jacob Headmann, Chicago; Dr. John L. Davis, Cincinnati; F. K. Sebring and N. L. Goldman, O.; Mrs. E. L. Wolds, New York

SCHOOL of DOMESTIC SCIENCE



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Details of courses are given *in extenso* in the Annual Announcement, which will be sent on application.

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City; H. D. Eberline, Detroit; M. H. Lane and Mrs. Lane, Kalamazoo; Mrs. Smith and child, N. Y.; Jas. F. Toy, Ia.; Fred H. Clarke, Detroit; Mrs. E. T. Long, Mich.; Frank B. Schultz, Milwaukee; Liba R. Walker and Chas. H. Saunders, W. Va.; M. L. Fraser, Calif.; J. A. Dunn, City.

News and Personals

Mr. H. M. Read, of Ohio, prominent in insurance circles, is with us again.

Mr. F. W. Rogers, of Beaver Dam, Wis., one of the owners and proprietors of the Malleable Iron Works and Mines, is a new arrival.

An increasing number of business men are finding the Sanitarium a place where real rest and recuperation can be secured in less time than at ordinary resorts.

Mr. Alfred Betteridge, from Cuba, connected with the United Fruit Company, is here for treatment and recuperation, under the advice of Doctor Dunean, president of the Company and a warm friend of the Sanitarium.

Mr. J. P. Swogger, of Wilmington, Va., is again at the Sanitarium for a little period of rest and treatment. This gentleman was with us last summer and underwent a very severe operation from which he made a splendid recovery, and has experienced none of his former troubles since the operation, and is now in the enjoyment of quite good health.

South Hall, one of the main buildings of the Sanitarium, which was built for a dormitory, but has been for some years utilized for patients, will, upon the opening of the Sanitarium Annex, revert to its original use and will accommodate members of the helpers' and student family in connection with West Hall.



SANITARIUM VILLA—GOGUAC LAKE

Among recent arrivals at the Sanitarium we notice the name of Jos. W. Barnhill, M. D., a prominent surgeon of Columbus, Ohio.

Mr. Rome G. Brown, of Minneapolis, a prominent lawyer of the Twin Cities, is here as a patient at the recommendation of Dr. Horace Newhart, a well-known physician of that city.

Dr. Leslie Fraser, of California, formerly connected with the Sanitarium medical staff, has returned to resume her work in the institution. She is warmly greeted by a large number of devoted friends and associates.

Dr. John L. Davis, President of the Ohio Life Insurance Company, of Cincinnati, an old patron and friend of the institution, made us a brief visit during the past week. Doctor Davis has the habit of recommending his friends who need treatment to come to the Sanitarium, and frequently acts as guide in conducting them hither.

The work of fixing up the Sanitarium Annex, another view of which is given in this week's paper, is progressing as rapidly as a large force of mechanics can push it forward. It is confidently expected that it will be in readiness for guests by the middle of next month. A great deal of interest is centered in the opening of this large addition to our facilities.

Mr. Fred Butler and wife, of New York City, are spending a few days at the Sanitarium. This is by no means their first visit. Mr. Butler is a soloist of more than usual talent and is ministering to the Sanitarium family in song. His wife accompanies him upon the piano. Socially they add much to the genial atmosphere of the Sanitarium and so contribute to the enjoyment of our large family.

Docteur R. de Puyselau Fournier, of Paris, who is in this country inspecting hospitals and sanitariums in behalf of the French government, visited the Sanitarium in his official capacity during the past week, taking notes and making observations of the principles and methods employed in this institution.

Dr. Fournier is closely related to the French authorities, and besides being a man of considerable influence, is a very pleasant and genial gentleman.

Mr. C. F. Galan, a Scotchman by birth and a prominent planter from Rio Verde, Mexico, is a guest at the Sanitarium and is making good progress healthward. Mr. Galan is recently from the scene of the trouble in Mexico. He reports that a large number of American soldiers stationed along the border take the opportunity to desert and join the insurrecto army, the proximity of trouble and adventure being a temptation too strong for them to resist.

Dr. A. B. Kenworthy, M. B., C. M., of England, superintendent of a sanitarium located in the city of Southport, visited the Battle Creek Sanitarium one day last week, for the purpose of taking notes on the work of the institution. He put in a very busy day and was enthusiastic over the results of his visit. Doctor Kenworthy comes to this country as a delegate to the Baptist Congress which meets in Philadelphia about the middle of June, and in the interim will visit other points of interest, including the Pacific Coast.

The Sanitarium family was treated on the evening of the 16th to an unusually fine entertainment by a quintet of ladies from Bay City, who dispensed fine music. The singing quartet was composed of Elizabeth Goeschel, soprano; Mrs. Wm. Kerr, soprano; Susan B. Gowan, contralto; Mrs. H. C. Moulthrop, contralto. The accompanist and director was Mrs. Myrtle H. Eades, organist of the First Presbyterian church. Although not professionals, these ladies produced a program of music that in every respect delighted the large audience that greeted them in the gymnasium. Two of the ladies are wives of physicians, and of course were particularly interested in a visit to the Sanitarium, and it was a pleasure to have them with us for a day.

The graduating exercises of the Sanitarium Training School for Nurses will be held on the evening of June 6 in the gymnasium; the principal address being given by Mrs. Mariam T. Headland, M. D., who was for many years a medical missionary in Peking, and for some years physician to the Dowager Empress. The class will number about thirty. The graduation exercises of the Sanitarium School of Domestic Science and Household Economics will be held on the following evening, the class numbering about a dozen students. Particulars of these exercises will be given later. The baccalaureate sermon before these classes will be by Prof. Chas. A. Blanchard, president of Wheaton College, Illinois.

THE GOGUAC VILLA

WE give on this page a cut of the Sanitarium Villa at Lake Goguac, which will soon be opened for the season. Goguac Lake is situated within two miles of the Sanitarium and connected by a car line, so that this resort is easily accessible.

THE BATTLE CREEK IDEA

VOLUME IV
NUMBER TWENTY-FIVE

\$1.00 A YEAR
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PUBLISHED WEEKLY AT BATTLE CREEK, MICHIGAN. MAY 26, 1911

About the Tonsils

Dr. A. J. Read in a Parlor Talk Tells His Patients of This Slighted and Abused Member of the Human Anatomy

THE tonsil is one of the most wonderful structures of the whole body. It is often regarded as a supernumerary organ to be re-

TAKEN FROM THE QUESTION BOX

Sundry Queries Propounded by Patients, with Ready Responses by the Sanitarium Superintendent

Q. What is benzoate of soda?
A. It is a poison which, in some instances at least, is prepared from the urine of horses.

NEW DISCOVERIES IN DIGESTION

Dr. J. H. Kellogg Continues to Relate Recent Investigations by Pawlow on the Work of Digestion and Nutrition

I HAVE already alluded to the discoveries made by Professor Pawlow in regard to the processes of digestion and the manner in



THE DINING-ROOM OF THE SANITARIUM ANNEX

moved on the slightest provocation, and that is about all the thought that most of us give it. It is really placed between the pillars, the fauces, of the throat as a protection for the whole body. I say it is a wonderful organ because it has functions that no other organ of the body has, and performs them in a remarkable way. The tonsil, first of all, has a magnetic power; as the magnet attracts iron filings, so the tonsil attracts destructive germs; it is a sort of magnetic healer placed in your throat. It has the power of attracting germs that may get into the mouth with

(Continued on page three)

It is also prepared from other sources, and it is antiseptic. It is used by certain people to preserve the residues of canning establishments. In canning tomatoes, for example, there is pulp left, a lot of residues, of parings, and in various fruits there are parings, cores, and residues which are put through machines and the pulp is pressed out, and these are shipped to certain factories where they are made into catsups, marmalades, and all sorts of things. Now, in order to preserve these residues, it is necessary to use some antiseptic, because they ferment so

(Continued on page five)

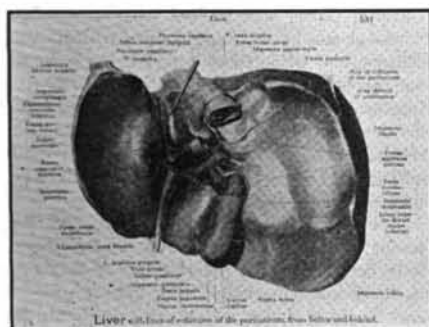
which the secretion of gastric juice is controlled by the nerves which receive their impulses from the "taste buds" at the base of the tongue. But the investigations of the savant do not end with these. He has observed with care and success both the mechanical and chemical phases of the subject of digestion.

Among other things, he has found that several food substances accelerate the secretion of gastric juice, while others diminish it. For instance, he found that the extracts of meat have a very powerful influence in stimulating the flow of gastric juice. The most

Original from

UNIVERSITY OF MICHIGAN

enlargement of the liver, and produce disease of the liver by overfeeding. The geese are fastened to a plank, with their eyes put out; they are moved around as little as possible, and they are kept in the dark. Once in every two hours a woman goes around with pills of dough, opens the mouth of the goose and with a ramrod pushes them down into the stomach. They have a machine now that works by electricity in some way, and pumps the food down into the stomach and does it a little quicker, and the result is, the liver undergoes fatty degeneration and fills a large part of the inside of the goose; then the goose is killed, and those great, fat, degen-



erated, diseased livers are made into a paste, and form one of the delicacies put upon the hotel tables, called *pâté de foie gras*.

There are some people who treat their livers very much in the same way. While they do not eat every two hours, or feed themselves with pellets pushed down with a stick, they nevertheless live upon food which destroys the liver and affects it in exactly the same way as those overfed geese. Overfeeding is one of the things that destroys the liver, because the liver is a digestive organ.

The Most Important Function of the Liver

is to destroy poisons that are absorbed from the colon, and other poisons. They are taken up in the portal vein and carried into the liver, and the liver destroys the poisons, or filters them out. That is why it is possible for a person to take poisons into his system and survive. The smoking of tobacco, the drinking of liquor, taking of calomel, and many other pernicious habits are tolerated because of the action of the liver in eliminating poisons from the blood. It is the liver that protects us against all these poisons.

One experiment Pawlow made was that the portal vein of a dog was connected with the ascending vena cava, which carries the blood straight to the heart, and so on around the body. By this operation the blood, laden with poisons that formerly passed through the portal vein to the liver for purification, passed directly into the general circulation. This dog got along all right and enjoyed good health as long as the dog was fed upon an antitoxie diet; but after awhile the dog was given meat to eat, and in three days it was a dead dog.

This Fact Shows

that a dog that eats meat can not live unless the liver does something to protect the body against the injurious influences of meat. But if the dog does not eat meat, he can get along and live comfortably without his liver while

the diet is a non-toxic diet. I am telling you this so you can see that the bill of fare of the Sanitarium dining-room is not made out without a good reason for it. It is not simply to satisfy a whim, or a fancy, or anything of that sort, but simply to give you the conditions which modern science shows are absolutely necessary for the best possible progress toward health; and my great ambition is that while our guests are here they may be persuaded to continue to live in the way which we point out to you while you are here.

I am giving you these scientific facts, every one of which I am able to vouch for and to demonstrate, to give you the absolute, positive evidence. And I take the trouble to do this because I hope some of you at least, when you go home, will keep on in the way in which you are taught to walk while you are here,—the only way in which you can preserve the health you got while here.

ABOUT THE TONSILS

(Continued from page one)

the air, or with the food, or water, or from contamination of neglected teeth. Did you ever see a magnet attract steel filings? That is precisely the way germs adhere to the tonsils. There is no other organ or tissue of the body that has the power to the same extent that the tonsil has to gather out of the vital stream the deleterious organisms. For this reason it is placed in the flood gates of the mouth (the fauces) by the source of the vital food stream, and at the junction with the air stream in the naso-pharynx.

Then it has another power that no other organ has. When it has attracted these germs and fastened them there, they are drawn down into a little crypt, for the tonsil is full of little pockets, and it fills its pockets with these germs, gathers them in from the surface, stuffs them into its pockets, like the

tuberculosis. It may not be generally known that these germs are all different. If you are going to dissolve seeds, for example, it would take a different quality of chemical to dissolve rice from what it would take to dissolve a kernel of corn; and it would take a different quality of chemical to dissolve a kernel of corn from what it would take to dissolve a bean; and you would find some seeds that would dissolve much more readily than others. The same principle is true in regard to germs. Some of them will dissolve very readily, and others will not, and require a special secretion. The tonsil seems to have the intelligence that enables it to recognize these germs. Then when the germs are dissolved, the tonsil drops these germs into the lymph glands and they travel down to the spleen, the burial ground of germs in the body; and there they are buried forever. Now, this wonderful work is only a part of the function of the tonsil. It is able to inhibit the growth of germs, to cripple them so they can not multiply very readily, and it is placed there as a safeguard to prevent the germs from getting down into the lungs or stomach. Unfortunately, most of our children in these days of degeneracy have some degenerate tissue in the body. We all have some marks of degeneracy showing in us, because the race is tending to degeneration. The tonsil is one of the first tissues to show degenerating processes, and those who have children with bad tonsils need to do everything they can to increase their resistance, knowing that that is one of the danger signals that is hung out. The tonsils in many children get diseased first of all, because of some inherited tendencies to degeneracy, but perhaps more important than that, because the children are not properly fed and properly nourished, and because they are not given the proper amount of fresh air during childhood. In infancy a child should gradually be brought to accustom itself to fresh, cold air. The babies ought to have a nap outdoors every day, having the head covered



LOBBY OF THE SANITARIUM ANNEX

small boy stuffs his pocket full of marbles during the marble season. When the tonsil has its pockets filled with germs, it has another power which is very remarkable; and that is the power to dissolve these germs. It will secrete a juice, a chemical product, that will dissolve whatever kind of germ happens to be there. If it is a germ of tuberculosis, then it will secrete just the quality of chemical that is necessary to dissolve the germs of

so they will not take cold, but breathe the cold, fresh air. Children should be kept out of dust. It is a great mistake to carry infants around in public assemblies where they are breathing the dust that is raised from the tramp of a thousand feet. Babies were not intended to go into crowds that way. If people want to show off their babies, have an open-air meeting for the baby, a baby show

(Continued on page five)

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A UNIVERSITY OF HEALTH

SUCH is the title frequently given to the Battle Creek Sanitarium by those who, having visited the institution and investigated its facilities and the various features of its work, go away impressed with the wide scope and the thorough and painstaking efforts made not only to combat disease and to relieve suffering, but also the great pains that are taken thoroughly to educate and indoctrinate the patrons of the institution with the knowledge of those things which if carried out will secure for them good, sound health and happiness for years to come.

The title is well deserved, for the work done here is not based upon any one idea; there are no fads or hobbies; the causes of diseases and infirmities are carefully and conscientiously searched for, and when discovered they are proclaimed in no uncertain tones. The work of scientific investigators in the Old World as well as the New is carefully scanned for new methods and advanced ideas concerning disease and its treatment, and nothing that seems or proves to be worthy of adoption is allowed to go unimproved. If any one is inclined to treat the methods and teachings of the Sanitarium as whimsical and visionary, a very little candid study and investigation of them will convince any fair-minded person of their soundness and reliability. The number of people who go away from the institution having experienced a complete revision of their impressions in regard to the Battle Creek Sanitarium System is very great. One hears continually from those who visit the institution for the first time, expressions of surprise at the completeness of the undertaking, at the freedom from all that is empirical and quackish, at the logical and philosophical character of the principles expounded here, and at the surprising results that are to be seen in the practical working out of the theories upheld.

In its education of the people the Sanitarium is doing its greatest and grandest work. It is true that very much is being done in relieving and restoring the sick, but the enlightenment of the public mind, the convert-

ing of the individual from the errors of his ways, in bringing a better understanding of how to live for health, the amount of good work that is going on is incalculable. Saying this is not boasting, for we are painfully conscious that that which is being done is infinitesimal when compared with what needs to be done. The path over which the work has come up has been marked by some missteps; but we are glad to feel that beneath the system of truth advocated and exhibited in this institution there is the immutable basis of sound philosophy of scientific facts and human principles. There is connected with it nothing that destroys or endangers life, the measures adopted are safe and sane, and those who employ them are sure to receive a degree of benefit and can feel no bad effects.

A limited number of people come here, and after receiving the treatments for some time perhaps realize but little benefit, and in very exceptional cases go away disappointed because their cases do not yield to treatment as they had hoped, because disease is long established and deep-seated. But returning to their homes and still observing what they have learned, they are surprised to witness their health spring forth, the benefits they were looking for come at last, though a little tardily, yet none the less welcome. And, best of all, they come to stay. The benefits of physiological treatment of disease are not momentary but permanent if the patient avoids what he has been told were the causes of his troubles. And through the remainder of his life, which he perhaps owes entirely to the knowledge he has gained here, he enjoys the benefits conferred upon him by a practical application of right principles and rational medicine.

A GRATEFUL PATIENT

A FEW weeks since, Rev. Iva C. Cartright, pastor of a church in Illinois, arrived at the Sanitarium in a greatly reduced condition of health and strength. For a long term of years Doctor Cartright had labored in Mexico as a missionary under the Methodist church. Returning to this country on account of his health, he assumed charge of the congregation in Illinois and developed a serious case of pernicious anemia, and came to the Sanitarium in an advanced stage of this dread disease. His countenance appeared almost bloodless, and he was wholly unable to walk or to help himself. Since returning to his people he writes to the superintendent of the Sanitarium as follows:

"It was with not a little reluctance that I left the Sanitarium the day before your expected return. I left with such 'abundant life' that I wanted you to see once more what, under God, I had received at the hands of yourself and your trained life-saving crew.

"When you pronounced my trouble pernicious anemia, I could not but think you had pronounced my death sentence. But so steady and constant was my improvement that I

was known as 'the star patient' at East Hall.

"Convalescing is a new experience, but I am being asked if I am as well as I appear to be. I can not but believe that I am, for I am doing my work with a buoyancy of spirit I did not enjoy for months before I went to Battle Creek.

"I feel, also, that I received quite an uplift spiritually in that blessed atmosphere. God continue his rich blessing on you all, and make you increasingly a blessing."

AN UNIQUE LUNCHEON

DURING her recent tour in the South, Dr. Carolyn Geisel was invited to spend a few weeks at one of the most notable educational centers, and while there a very great interest was aroused in the subject of healthful living, which involved both teachers and students. Following the doctor's visit to this school, the senior class undertook to provide a "Peanut Luncheon," which is thus described in the school paper:

For some time the young ladies of the senior class, in their domestic science work, have been making a special study of foods as to their nutritive value, etc., giving preference to those things which can and should be produced in large quantities in almost any locality in the South.

Last week the peanut was studied and a five-course luncheon given. Ten guests were invited, and the following things served. The recipes accompany each article named, with the hope that our readers will endeavor to try some of these most wholesome, nutritious and palatable articles as a part of each meal. Some of them are most excellent meat substitutes:

Peanut Soup

1 quart of milk, 2 tablespoonfuls of butter, 2 tablespoonfuls of flour, 1 cup of peanuts.

Cook peanuts until soft; remove the skins; mash or grind until very fine; let the milk come to a boil; add the peanuts; cook twenty minutes.

Rub the flour into a smooth paste with milk; add the butter to the peanuts and milk; stir in the flour; season with salt and pepper to taste; serve hot.

Peanut Wafers

2 cups of flour, 1 cup of water, 1 cup of sugar (powdered), ½ cup of rolled peanuts, ½ cup of butter.

Rub the butter and sugar together until light and creamy; add the flour and water alternately. Lastly add the peanuts, drop on buttered tins, and bake quickly. Cut in squares while hot, as it soon gets brittle after cooling.

Peanut Bread

Into any good biscuit dough work a liberal supply of blanched and ground nuts; roll out thin; cut in small discs, and bake in a quick oven; serve hot.

Peanut Coffee

½ cup of peanuts, ½ cup of wheat or rye, ½ cup of cow peas.

Roast all to a rich coffee; brown, grind, and make as for postum.

Salted Peanuts

Roast the peanuts; shell, and remove the thin hulls; put in a pan; butter slightly; put in oven and heat through; spread on pieces of white paper; sprinkle with fine salt, and serve.

Peanut Candy

2 cups sugar, 1 cup peanuts.

Melt the sugar in a frying pan; melt slowly, stirring constantly until melted. Butter a shallow dish, and cover the bottom with the roasted and cleaned nuts; pour the candy over them; set aside; when cool break in pieces, and serve.

Peanut Caramels

1 cup sugar, 1 cup molasses, 1 cup butter, 1 cup milk or cream, 1 cup ground peanuts.

Cream sugar and butter; add the molasses, cream or milk, stirring constantly; put mixture into a boiler and let boil, gently scraping the bottom to prevent burning (do not stir); let it cook until it forms a soft mass when dropped into cold water; add peanuts and pour into buttered tins. The layer should not be more than $\frac{1}{2}$ an inch thick. When cool enough, cut into small squares and wrap in thin glazed paper.

Peanut Cookies

3 cups flour, 2 eggs, 1 cup sugar, $1\frac{1}{2}$ cups ground peanuts, $\frac{1}{2}$ cup butter, 1 cup sweet milk, 1 teaspoonful of baking powder.

Cream butter and sugar; add eggs well beaten; now add the milk and flour; flavor to taste with vanilla. Add the peanuts last; drop one spoonful to the cookie in well greased pans; bake quickly.

Peanut Ice Cream

1 pint peanuts, 2 quarts milk, 2 cups sugar, 1 pint cream, 3 eggs, 2 teaspoons vanilla.

Roast, shell and roll the peanuts until they are quite fine; brown one cup of sugar and add to the milk; next add the remainder of the sugar, the cream, vanilla, and lastly the peanuts; freeze.

Mock Chicken

Blanch and grind a sufficient number of peanuts until they are quite oily; stir in one well-beaten egg; if too thin, thicken with rolled bread crumbs or cracker dust; stir in a little salt. Boil some sweet potatoes until done; peel and cut in thin slices; spread generously with the peanut mixture; fry to a chicken brown; serve hot.

Peanut Butter Sandwiches

Roast the desired number of peanuts; rub the thin hull off the nut; grind or rub in a mortar until quite smooth and oily; salt to taste, and spread a thin layer between crackers, lunch biscuit, rolls, or bread of that character. If the butter is not as thin as you wish, add a little fresh cow's butter, a little milk or water, and rub well. This butter will not keep as well as when the milk or water is left out.

Peanut Wafers

$\frac{1}{4}$ cup butter, 1 cup flour, 1 cup sugar, 1 cup blanched nuts, 1 egg.

Grind or roll the nuts; stir into the butter; drop on buttered tins, and bake quickly.

Cream Peanuts

1 pint white crowder peas, 1 cup cream, 1 pint peanuts, 1 teaspoon butter, 1 teaspoon sugar, 1 salt spoon salt.

Boil the peas until thoroughly done; pass through a colander; grind or crush the blanched peanuts; add all the ingredients except the cream and nuts; boil thirty minutes; mix the nuts and cream together with a tablespoon of flour; mix thoroughly; stir into the boiling peas; boil five minutes; whip vigorously until light, and serve. If one spoonful of flour is not sufficient, add more.

ABOUT THE TONSILS

(Continued from page three)

outdoors, but do not force the babies into crowded, dusty, dirty halls. If it is in any way reasonable or possible, save the babies from that exposure, and save their tonsils, because they will need them later on in life. The disregard of these principles results in so many disease germs clustering upon the tonsils that they become overwhelmed. They get their pockets stuffed full of germs but are unable to take care of them, and the result is the germs destroy the tonsil; it gets weak, gets worn out just as a boy's pocket gets worn out when he carries too many marbles in it, and pretty soon he gets holes in it. I have seen tonsils with holes all through them where they have been worn out by carrying their pockets full of germs for months and months. Very often we can dig out of them great, cheesy masses of germs and tissue mixed together where the tonsil has failed to destroy the germs; an incomplete chemical process has taken place, and this putrefying mass remains in the tonsil.

There are often taken out of those pockets of a tonsil lumps as big as the end of the lit-

tle finger. The pockets sometimes get so large that there is not much left of the tonsil except a very thin membrane surrounding the crypt, full of diseased and putrefying material. Now, that putrefying material is always accumulating, because the magnetic power of the tonsils to attract germs keeps up just the same, and it becomes a menace, and infection may travel down the lymph glands of the neck to the lungs. In that way many people get tuberculosis from a diseased tonsil. Enlarged glands of the neck should not be operated on till proper attention has been given to the tonsils, which in ninety per cent of the cases are the real cause of large glands in the neck. The canker condition on the tonsil is due to the presence of the germs, eating and eroding the tonsil, causing remote as well as local trouble. Autointoxication is very often caused by bad tonsils. That is very often the beginning of autointoxication in adults, and tonsils that are diseased in that way need to have proper attention.

QUESTION BOX

(Continued from page one)

quickly; they are cheap materials, and undergo fermentation so very quickly it is necessary to use a preservative, and that is what benzoate of soda is used for.

Q. What is the nutritive value of bran?

A. Bran can not be counted upon as a food. It is a difficult thing to determine whether bran has any nutritive value or not, for the reason that it is wood, and in the calorimeter in which we test the nutritive values of things, everything burns up. The wood burns, and the wood counts along with the other things. So the bran may appear to have a high nutritive value just as a stick of wood. A bit of shavings or sawdust in a

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 " "
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calorimeter would appear to have a nutritive value, because the calorimeter only tests the fuel value of a thing. The real test is the eating, after all.

Q. What is the special effect of a witch-hazel rub?

A. It is a mental effect. It is the witch that does it. Candidly, it is simply cooling. There is no effect of the witch hazel that will be in any degree better than that of water with a little bit of alcohol in the water to promote evaporation. It is simply to furnish a ready means of gradually cooling the skin.

Q. Is salicylic acid to be recommended for fruit canning purposes?

A. Certainly not. Salicylic acid is a very decided irritant to the stomach. It sets up inflammatory processes when used for any length of time, causing a burning and irritation of the stomach. Even when used as a medicine, doctors have great difficulty in administering it, because of its irritating effects upon the stomach. When taken as a food, it is extremely harmful and does great damage to the kidneys.

Q. Is it anything unusual to find a small per cent of albumin in the urine?

A. It is an unusual thing, and it means one of three things—either the person has Bright's disease, or congested kidneys, or has been taking an excess of protein. If a man eats a dozen eggs, it will produce albumin in the urine. A person eating a hearty meal of meat will suffer in the same way. A very severe acute autointoxication is likely to produce a little albumin in the urine. Bright's disease may show albumin in the urine, but in many cases there is no albumin. That can not be relied upon as a symptom of Bright's disease.

Q. What is the best treatment for catarrh of the nose?

A. Go to a nose specialist and have him examine your nose and see what the trouble is. If you have chronic catarrh, the probability is there are some places in your nose where the parts are grown together, and there the germs collect, grow, multiply, and cause infection which extends to the rear of the nose. Now, the thing that is necessary is that those surfaces should be separated so the air can circulate freely through the nose. The germs that produce catarrh are what are known as anaerobes. They can not grow where air is present in abundance. They have to grow in a warm, hidden place. They are like the germs that produce decay of the teeth. The teeth do not decay on the top or on the side, but between the teeth; and that is where food gets in and accumulates, hides the germs and covers them up so they are not exposed to the air, and they can grow and attack the teeth. The same is true of the nose. There are little places there where germs get away from the air, and they can grow there and produce ulceration and throat infection that extend throughout the nose. Thus the surfaces must be opened up so the air can pass freely through the nose, and that is the most important thing to be done in nasal catarrh.

Q. What is the cause of high blood-pressure?

A. The most common cause is meat eating, the use of meat and the auto-intoxication that results from it. Metchnikoff, of Paris, showed long ago that the germs which thrive upon meat and cause putrefaction in the intestines produce poisons, which absorbed into the blood and circulated through the blood irritate the arteries and cause hardening of the arteries and high blood-pressure; and nobody disputes it. Tea and coffee, mustard, pepper, peppercorn, and all those things produce the very same effects. Tobacco also produces the same effect. This hardening of the arteries is also produced by lead poisoning from lead pipes. The long-continued use of water supplied through lead pipes may result in arteriosclerosis. However, it is understood nowadays that the lead pipe used is lined with tin, which is not likely to produce this effect.

Q. Are ordinary cocoa and chocolate very injurious as breakfast drinks?

A. Well, the more cocoa and the more chocolate, the more the injury. The less used of these, the better. There is some theobromin always in chocolate and cocoa, and the proportion may be quite large. In certain cocoas it is larger than in others, and larger even than it is in tea and coffee.

Q. What is the best remedy to clear the mucus in the nose and throat?

A. A few sips of hot water. Drinking a tumblerful of hot water is a very good remedy.

ARRIVALS

THE list of arrivals at the Battle Creek Sanitarium for the week ending May 21 is as follows: Miss M. L. Jones, Kalamazoo; Wm. Edgar Geil, Pa.; Frances McIntosh, Detroit; H. E. Flack, Saginaw; G. E. Connor, Chicago; E. E. Hale and wife, and C. S. Thomas and wife, O.; Mrs. A. B. Stahl, Chicago; H. L. Chapman, Ill.; Mrs. E. M. Britton and R. E. Hart, Mich.; M. W. Walton, Ill.; G. D. Schermerhorn, Miss.; Mrs. W. C. McConley and daughter, Ky.; C. G. Hammond, N. Y.; F. E. Lewellyn, Mich.; S. J. Dunkley, Kalamazoo; Geo. M. Hale, Mich.; T. J. Barnes and A. H. Barnes, O.; C. H. Laufmann, Chicago; C. H. Coyle, Ia.; T. H. Lepanu, Indianapolis; Dr. Henry W. Cox, Ark.; A. Goodholm and J. R. Eldridge, Chicago; Christian Bartholomew, Mich.; I. N. Shephard, Mich.; Geo. Wm. Leavitt and Darwin A. Leavitt, Wis.; A. R. Morehouse, Mich.; R. H. Keech, A. L. Clark and Mrs. M. Clark, N. Y.; R. L. Smith, Pa.; Mrs. J. W. Sutton and Miss G. E. Temple, Mich.; Stella C. Venable, M. D., N. Y.; A. C. Hall, Mo.; F. B. Roe, Des Moines; E. H. Grubb, Colo.; H. N. Warren, Buffalo; Mr. and Mrs. R. H. Redman, Duluth; O. W. Oehsenheit, Pittsburg; H. A. Eberline, Detroit; J. W. Ritter, Chicago; J. L. Webster, Indianapolis; T. N. Andrew, Canada; Otto Luke, Scotland; John G. Luke, New York City; John H. Allen, Mrs. M. B. Roach and Miss Electa Roach, O.; S. A. Cronk and Miss Margaret Christie, Wis.; W. B. Foote, Ark.; Rev. Geo. H. Hubbard and wife, O.; F. H. Gill, Minneapolis; Mr. and Mrs. S. C. French, Okla.;

O. E. Otis, Mich.; Adeline Bishop, Ill.; Wm. B. Butts, N. Y.; W. Reardon, Mich.; A. Y. Turpin and wife, New York City; Rev. Wilbur F. Crafts, Washington, D. C.; J. A. Humiston and wife, Ia.; Mrs. E. A. Royce, Chicago; R. L. Hauskuecht, Pa.; Reynolds Smith, Detroit; Miss K. E. Royce, Baltimore; Louis P. Dvering, Cleveland; Mary E. Cooley, Mich.; Mrs. P. R. Brotter, Chicago; D. F. Harris and Viola Rice, Mich.; John Leberard, W. Va.; Mrs. E. B. Forman, Ky.; E. R. Cooper, Los Angeles; Miss Eva Dardie, China; H. O. Herrick, Detroit; Charles H. Wheelock, City; N. A. Stoddard, Mich.; F. C. Bagnow and B. Freedman, Chicago; David Wertz, O.; Mr. and Mrs. A. L. Mayer, Chicago; Mrs. Frank Frebeger, O.; Arthur Freidher, Denmark; Carroll Smith, E. Africa; E. W. Dallman and F. J. Delano, Mich.; Chas. W. Bamm, Chicago; Geo. F. Wilson, Ont.; Theo. Schmeltzriedt, M. D., Detroit; Myrtle Harrington Eades, Susan Brownville Gowan, Mrs. H. C. Moulthrop, Jennie L. Redfield, Elizabeth Goeschel and Mrs. Wm. Kerr, Mich.; L. E. Armstrong, Ia.; Miss M. W. Witham and Dr. J. T. McAully, Ill.; J. L. Daniels and wife, Okla.; H. W. Meek, O.; Rev. A. C. Dixon, Chicago; Mrs. J. Raymond Lynn, Indianapolis; Mrs. W. M. Bruce, Mrs. Parker C. Evans and Parker Evans, Ark.; L. Femburg, Chicago; D. Klein, Tex.; Chas. Nathan, La.; C. C. Benson and Chas. Wolohan, Mich.; Viola Goodenow, R. A. Long, W. E. Minar and Henry F. Hoit, Mo.; Dr. F. A. Phillips and wife, Chicago; Miss G. E. Bitely, Mich.; Frances G. Shauklin, Ind.; John Andrew and I. A. Andrew, Ont.; T. C. Edmiston, O.; A. P. Tom, Los Angeles; Alfred Shepard

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and Mrs. J. F. Guy, City; J. P. Swogger and L. L. Swogger, Pa.; Dr. David Paulson, Ill.; Miss Emily Mead, City; Michael Williams and wife, Calif.

News and Personals

Rev. G. H. Hubbard, a missionary to China, accompanied by his wife, reached us during the past week. They came partly to visit their daughter, who has been with us for some time, and also to afford Mr. Hubbard an opportunity for rest and treatment.

Rev. Chester A. Burch, wife and child, of Winona Lake, Ind., are with us for a few days, the little daughter requiring some slight surgical work. Mr. Burch is active in evangelistic work, in which capacity he is very well and favorably known. He has visited the Sanitarium before, and his friends are glad to welcome him again.

Rev. E. F. Fox, of Toronto, accompanied by his daughter, who has been broken in health for some time, arrived at the Sanitarium early in the week. Doctor Fox is at the head of the Baptist Foreign Mission Board of Canada, and has traveled extensively, especially throughout South American regions. We hope to hear from Doctor Fox while he is with us.

Among the recent arrivals at the Sanitarium are the following: Dr. Stella C. Venable, of Genesee, N. Y., who is here for the first time. Dr. Florence McCormick, of Lake View Sanitarium, Toronto, who is accompanied by Mrs. Mitchell from Winnipeg. We also note the name of Miss Margaret Christie, of Neenah, Wis., sister of Mr. Cook, who is an old friend and patron of the Sanitarium.

The Battle Creek Symphony Orchestra under the direction of Professor John B. Martin gave a grand concert in the gymnasium on the evening of the 23d inst. This company of musicians are a credit to our city, both in the class of music which they present and in the skill which they have developed under their competent leader. The concert was largely attended and highly appreciated by the Sanitarium family.

The Mac Waters Quartette will present a program of vocal music in the Sanitarium gymnasium on the evening of May 27. The quartette is composed of four young evangelists fresh from college, who are singing their way around the world in an evangelistic tour. They come very highly recommended, both for personal qualities and musical talent, and will undoubtedly afford the Sanitarium family a very enjoyable evening.

Dr. Wilbur F. Crafts, of Washington, D. C., Secretary of the International Reform Association, interested in various reforms and philanthropic movements, was a visitor at the Sanitarium during the past week and occupied the Sanitarium pulpit on Sabbath

morning, at which time he delivered a very helpful discourse on the "Bridge of Faith." Faith is a bridge consisting of four great spans, experience, intellect, the heart, and the life.

Rev. A. C. Dixon, D. D., who for several years has been pastor of the Moody church in Chicago and a very prominent preacher of this country, made a short visit to the Sanitarium last week. Doctor Dixon is now leaving this country to accept a call to the Spurgeon Tabernacle in London. In his departure America loses one of her best pulpit orators and a very earnest expositor of the Gospel. Doctor Dixon expected to sail for his new field of labor on the 23d inst.

Extensive improvements are in progress on the north side of the College campus. A force of men and teams are at work grading a one-eighth-mile running track and providing two additional tennis courts for the use of Sanitarium guests. These grounds will be conveniently located for both the main building and the annex. The work of fitting up the annex for occupancy is going rapidly forward, and the building will soon be in preparation to meet the constantly increasing number of guests that are coming to us.

The national meeting of the American Association of Nurses' Training School superintendents meets in Boston on the 29th inst., and the annual conference of the National Nurses' Association follows immediately, June 1-3, in the same place. The Battle Creek Sanitarium is to be represented at these important meetings by Mrs. M. S. Foy, superintendent of nurses, and the Misses Leona Sweet and Martha Kirschman, who have already left us for this purpose.

Prof. Chas. A. Blanchard, president of the Wheaton College, Illinois, and his estimable wife are guests at the Sanitarium this week. This is not their first visit with us. They come for a short rest and recuperation and are always warmly welcomed. Their genial presence is gratefully felt in our midst. Professor Blanchard has been engaged to deliver the baccalaureate sermon before the graduating class of the Nurses' Training School and the School of Domestic Science on the 3d of June.

The meeting of the Battle Creek Nurses' Alumnae Association was held in the West Hall parlor on the evening of the 18th inst., at which time Dr. W. H. Riley presented a very interesting and instructive address on the Nervous System and Functions of the Brain. Miss Carrie Zahn and Mrs. Morse, representatives of the local society, presented a report of the recent meeting of the State Nurses' Association, held in Jackson on the 4th and 5th of May. Several new members were admitted, and preparations were made for the coming reception of the new graduating class. The local association is in a flourishing condition and its meetings are well attended.

It would be difficult to imagine a more beautiful scene than is presented by the Sanitarium grounds at this season of the year

when the grass and foliage are out in all their freshness and glory. The gardeners are busy ornamenting walks and borders with bright geraniums and many other flowering plants which throughout the summer dress the velvety and capacious lawns in glowing shades of beauty. Then, with scores of patients and guests sitting or reclining in cool comfort, the picture is completed, the like of which it would be difficult to duplicate.

Mrs. Fanny E. Dowkontt, the social matron of the Sanitarium, visited "The World in Boston," the name given to the great missionary exposition recently given in that city, and has written a most interesting account of her observations which will appear in the June number of the *Medical Missionary*. Dr. J. H. Kellogg, superintendent of the Sanitarium, also spent a short time inspecting the great exhibition, and reports that the aggregation of exhibits was very remarkable. It is expected that it will be reproduced in some of the Western cities at some time in the future.

Dr. Wm. Edgar Geil, the famous traveler and explorer, visited Battle Creek last week for the purpose of delivering his famous lecture on "Pigmy Land" in the Tabernacle. The event occurred on Sunday evening, at which time the city churches omitted their services and attended the lecture. The speaker carried his audience in vivid thought and imagination across the Dark Continent from east to west, along the line of the equator. The lecture included many experiences and gave the result of many observations. His account of the pigmy tribe who inhabit the "Forest of Eternal Twilight" in the heart of Africa, formed the special feature of the lecture and afforded much information of interest concerning this unique people. During his stay in the city, Doctor Geil was the guest of the Sanitarium, to whose principles and methods the doctor seemed to have formed a strong attachment during his visit here.

A company of capitalists, mostly from the East, visited Battle Creek on the 23d and 24th inst. for the purpose of looking over certain property interests in the city, especially in connection with the development of electrical power. The party consisted of about thirty men of finance. They were entertained at the Sanitarium for breakfast and employed a very pleasant hour in looking over the institution. The party consisted of the following visitors besides local business men: Earl S. Coleman, Providence, R. I.; F. R. Huntington, Columbus, O.; George W. Eustis, Cincinnati, O.; John Metcalf, Providence, R. I.; R. Chester Snow, Providence, R. I.; P. E. Lamarche, New York; John J. McKeon, New Haven, Conn.; Albert Hale, Boston, Mass.; Wallington E. Bull, New York; H. M. Horton, Providence, R. I.; Karl R. Minner, New York; B. C. Cobb, New York; W. M. Eaton, New York; J. B. Foote, Jackson, Mich.; G. E. Neordy, New York; George C. Kendrick, Philadelphia; W. B. Recstz, Philadelphia; Waldo S. Reed, New York; Frank Silliman, Philadelphia; Robert Davy, Jackson, Mich.; R. E. Richardson, Jackson, Mich.

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Rest and Exercise

A Parlor Lecture on the Uses of These Factors in the Treatment of Disease, by Dr. W. H. Riley

THIS evening it may be well for us to consider the value of rest and exercise in the

WHAT THEY EAT AT THE SANITARIUM

What the Battle Creek Sanitarium Provides for the Inner Man—A Question of Great Interest to Many

THE Battle Creek Sanitarium does not starve its people. One stopping at the Sani-

The Miracle of Healing

Dr. J. H. Kellogg, in a Parlor Lecture, Discusses the Phenomena of Healing, of Life, and Creation

THE healing of disease has always been a mystery. The earliest people looked upon



THE SANITARIUM ANNEX—VIEW FROM THE NORTH

treatment of disease. Before considering these, I wish to emphasize again certain principles of which I have spoken here before. I speak of these things often because they are important.

There is present in every living thing a certain principle that we call vitality—the vital principle of life. While we have

(Continued on page five)

tarium frequently overhears expressions of surprise from those who for the first time have had an actual experience at the tables set by the Sanitarium for its people. It seems unaccountable that so many intelligent people should come here with the impression that people are actually starved, that the food is insufficient, and is stingily

(Continued on page three)

disease as an infliction coming either from a divine source or from an evil source. When a man was sick, it was either because good or evil spirits made him sick. And the gods must be placated, or the devil must be in some way cajoled into letting him alone. So the old methods of healing, based upon that philosophy, consisted chiefly of magic of various sorts. Certain fountains or

spring have been supposed to possess this magic ability to charm away disease. Certain herbs have been supposed to have the power to persuade the demon in the man to leave him. Sometimes these herbs were burned and brought near the nostrils of the sick man, then carried away and brought back again, with the hope that the devil might be coaxed out.

Sickness Was Supposed to be a Demoniacal Possession,

and the demon must be in some way induced to leave.

This idea in a modified form still exists in the world. The idea has prevailed that certain drugs possessed the power of exorcising disease out of the patient. Disease has long been looked upon as an entity; and even when the superstitions of the early days and the Dark Ages began to leave the human mind, people were still possessed of this idea; if not a demon, it was still an entity of some sort that must be driven out, something that must be battled with. Doctors many years ago used to attack disease so vigorously that frequently there was not much left of the patient when the battle was over; and it is quite possible that that might happen even in these latter days. It is a thing the doctor has always to be on the lookout for, that the remedies he administers are not doing his patient as much harm as good.

By degrees, better ideas of disease have come to be entertained. At the present time people are gradually losing their faith in drugs, and doctors are using them less and less, and this has come about by a recognition of the real nature of disease. Disease is no longer looked upon as a malign entity that has possession of a man and is sapping his life; but

Disease is Now Regarded as a Natural Process,

by which the body is seeking to bring itself back to a normal state, because of some departure from the normal conditions of life. The same forces of the body which are ordinarily in operation in the body are operating under adverse circumstances. That is what we call disease; but it is only such a different process or action as is required by the emergency that has developed.

We find that the remedial process, the cure of disease or morbid conditions, is not confined to human beings; nor is it confined to animals; it is a thing which pertains to life of all sorts, vegetable as well as animal. Inflict a wound upon a tree, and in due time, in most instances, the wound will have been healed over. There is a tree upon my lawn that I set out some eighteen years ago. While it was very young, I discovered that the bark on one side of the tree was blistered by the sun. A friend said that that tree would die, but I passed it to-day, and it is a large, fine tree, and the place where the bark had come off is all healed. New bark has grown out and the edges of the bark gradually grew together until the trunk of the tree is entirely covered. It has been healed by the same process that is making the tree.

The Healing Process

The very same thing happens to human beings. Our skin—the bark of the body, we

might call it—is wounded by a cut, or perhaps a burn which takes off a large area of skin. In due time it is covered over, not with perfect skin, entirely, in this case, but with a protected covering which for a limited area takes the place of the skin very well. If we examine the edge of the wound we can see it is healing, we can see that there is a little white rim around the edge. Each day we will see it approaching the center, and in due time the wound is covered over. There are various "healing salves," healing lotions, so called, that many people have great faith in, but none of these are capable of healing. If we stop to think of it, we know there is no such thing as salve that can heal or can make skin. These so-called healing agents only protect.

There is nothing we can do to a raw surface on the skin except to protect it. The healing process is a process by which new skin is created; and it has been a mystery through all the ages why this healing takes place. Here is a normal skin, the cells pursuing normal activities; we cut the skin and there is a gaping wound. At once these cells begin to grow, to reproduce themselves with great activity. Cell proliferation, as it is called, takes place, and in a little while the gap is filled up.

Why Does This Occur?

Why do these cells take on this hyperactivity as soon as a wound occurs? Nobody every knew until very recently. Doctor Ross, of Liverpool, who has been studying this question for a good many years, has made the discovery that the thing that starts this process of healing is the dead cells, the destroyed tissues, the disintegrated flesh. The living cells are destroyed by the wound, and the products of the destruction of these cells act as a stimulus to the living cells and cause them to take on this extraordinary activity. So we see those cells are ready to do something which they are not doing, if they have the right kind of stimulus. All they require is notification of what they should do. There is an instinct within them which causes them to heal a wound, when healing of a wound is needed, and all they require is notification, and the notification which comes to them is the most natural thing in the world. It is the natural result of the wound itself. The product of the destroyed cells is a notification to the living cells that there is work for them to do in repairing damage that has been done. This is a very interesting discovery, and by means of this discovery Doctor Ross was able with a microscope to see living cells at work, dividing and multiplying. This was the first time in the history of the world that the white blood cells were seen to divide and multiply under the eye of the observer, under the stimulus of these products of tissue destruction. So the mystery is to some degree being removed; but down beneath it all the great mystery still remains.

There are the cells, resting quietly in the skin, and suddenly under this new stimulus they begin to reproduce themselves to an enormous degree. Sometimes persons have lost as much as one-third of the surface of the body, and that would mean that perhaps two square feet of skin had to be reproduced. See what a very great work these cells have

to do! We see that illustrated even more fully in some cases that are observed by the biologist. When a lobster, for example, loses its leg, or two or three of them, in a few weeks he will have new legs in every way just as good as the first were.

A Lobster Throws His Legs Away

on the slightest provocation, perhaps because he has learned from experience that he will get a new set. I have seen people who have thrown away their livers, and thrown away their stomachs, thrown away their nerve energy, and lived recklessly in a great variety of ways; but they do not get back again that which they sacrifice as easily as does a lobster. Other forms of lower life have this power of reproduction of lost parts to a marvelous degree.

There is something of this power in the human body. The liver, for instance, has a marvelous power to reproduce itself. A German physiologist took a rabbit and cut off half its liver, and it grew on again in the course of three months; then he cut off the other half, and it grew on; so the rabbit in the course of half a year had a new liver.

Fortunately, there is a process of repair going on in the human body, a process going on by means of which the body is reproduced. The soft parts of the body are changed perhaps every few months. The hard parts change very slowly, but the greater part of the tissues are undergoing continual change. The blood, of which a person of average size has about ten pints, is changed frequently. The blood cells are all made over new every six weeks, and the plasma is changed much oftener than that. Through this process, recreation and reproduction are going on in the body continually. Eight million new blood cells are made every second of our lives. We are apt to think of creation as something that happened away back somewhere in the ages, in the beginning of things; but the creation that is of vital importance to us is

The Creation that is Going on Now,

before our eyes,—a process that is going on continually in our bodies.

Here is an illustration of it that you may see just now. The farmers are planting their corn. We see a farmer going out with a bushel of corn, and if we will wait just a few weeks we will see that same farmer out there with horses and wagons hauling in the corn that has grown from that one bushel. Three hundred bushels of corn, perhaps, will be taken back where only one bushel went out. That corn has been created. Every kernel in that three hundred bushels has just as much vigor and vitality and is in every way equal to the kernels of corn that went out; so you see there is a creation.

The process of eating involves a real process of creation. The food we eat at our tables is dead, it is inert. If left upon the table it would soon decay. But eat it and it is created into our bodies, the food is transmuted, or transfigured. The food we eat to-day will to-morrow be walking around and talking, will be alive, and thinking, sentient, full of force and energy, while to-day it is dead and inert. So here is a marvelous pro-

cess of creation. We may call it the miracle of life, if you please, because there are so many things that are absolutely inexplicable.

The only explanation of the mystery is that the same Power that made us in the first place, the same Power that made the first man, that supreme Power that sustains the universe, is still working in us; it dwells within us; it is incarnate in every organ and fiber of our bodies.

WHAT THEY EAT

(Continued from page one)

doled out, and is of a kind and quality that is both innutritious and disagreeable. One who has once been here laughs at such remarks, but still, some people acknowledge that they have been deterred from coming here for treatment by the fear that they would not find anything they could eat, and would be compelled to subsist upon food similar to that fed to horses.

It would be a pleasure to disabuse the minds of any who may be troubled over this matter, though we are happy to know that there are not as many people laboring under this delusion at the present time as formerly, because intelligent people are coming to perceive the real status of the food question, and to recognize the excellent virtue represented in the Sanitarium bill of fare.

The Sanitarium Dietary is Not a System of Negatives.

It does not consist in saying, "Thou shalt not." While it eschews some articles that are found in the ordinary dietary, the places of these rejected articles are filled many times over with things far more pleasant, more healthful and acceptable to the natural appetite. The absence of flesh is perhaps the most conspicuous deviation from prevailing customs. And some people have a very positive impression that if they were not permitted to eat other living creatures, life would have no charm for them, there would be absolutely no use of living, for there would not be anything at all to eat. So carnivorous and really bloodthirsty have civilized people become in their tastes that life seems largely to center in steaks and roasts.

The Sanitarium is doing its utmost to educate people out of that unfortunate way of thinking and eating. And the success it is having is very remarkable, and very gratifying to those who have the work in charge. The eyes of the people are being opened, and the real esthetic sense is being awakened to the true nature of food, and to discern between that which is natural, pure, and wholesome, and that which is craved by vitiated and artificial tastes.

Some Will Ask,

Well, since you do not use meat, what can there be to give variety and make your tables attractive?"

Just follow out mentally the following facts and suggestions. If we are dependent upon the flesh and blood of our fellow creatures for sustenance, then it must be confessed that the arrangement is very imperfect, and the Creator did not make suffi-

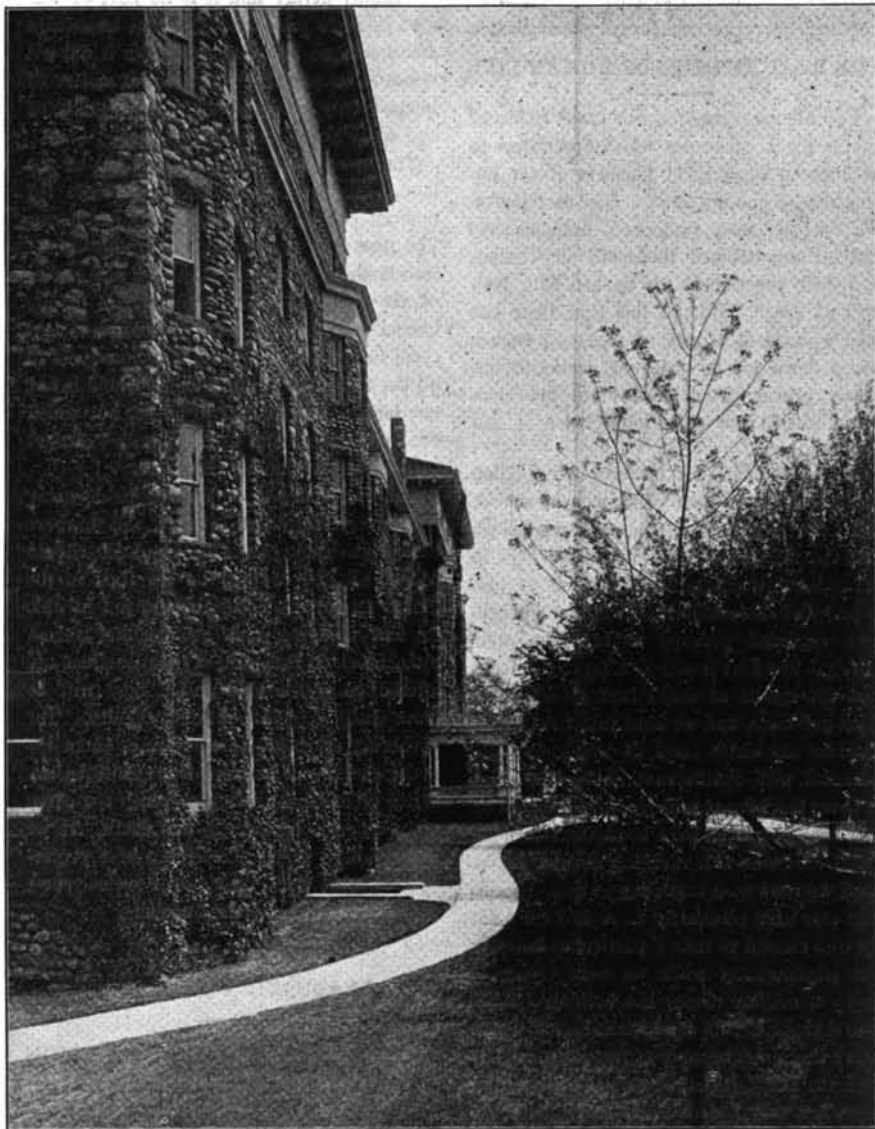
cient provisions to give to each of his creatures a chance for his life. This is a serious impeachment of the wisdom and goodness of divine bounty. But to answer the question more definitely, let us look at the abundant and delightful supplies of natural food provided for us from mother earth.

First, Grains. Wheat, oats, rice, corn, and many other cereals, containing the purest and most perfect elements of nutrition in forms easily available, and susceptible of endless forms of preparation and appetizing presentation. The grains are not putrefac-

the cargo, all charged with life and health for the million, so delicious and reviving.

Third, Nuts. These products of nature grow and ripen in the sunshine, and are heavily charged with nutritious qualities, especially protein and fat, the food principles found in a flesh diet, but in a more pure and wholesome state. The nut family is very numerous, and nuts are so easily transported that the products of the whole earth are made easily accessible.

Fourth, Vegetables. This class of foods, in common parlance, includes a large variety,



THE SANITARIUM ANNEX—ALONG THE SOUTH WALL

tive nor charged with dangerous and death-dealing bacteria; in them is pure, healthful nutrition.

Second, Fruits. Think of the luscious, beautiful fruits that grow on vines and trees, and gather from the sunshine, from the air, and the earth those elements of cheer and good health that are so gratefully received and so easily appropriated by the system. Think of the pears, the apples, the plums, peaches, berries of various sorts, and the fruits brought to us from warmer climes by

not only the roots, but also the legumes, soft grains, and edible green leaves. Some of these are eaten raw as salads, some are cooked, in an infinite variety of forms. This class of foodstuffs affords a great variety of food elements, especially in the various salts or mineral elements, starch, and protein.

With such resources at our command, it surely would not be an impracticable thing to provide a menu that would be highly sat-

(Continued on page four)

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THE REAL ENEMIES OF HUMAN LIFE

For all ages mankind has stood in dread of the great calamities which from time to time sweep away great numbers of the human race at one fell swoop. The earthquake, the cyclone, war, pestilence, famine, have claimed unnumbered thousands of victims, and their very names are spoken with feelings of dread. But all this time there has been a constant stream of men and women going down to the gates of death, to untimely graves, from causes that are mentioned oftentimes with indifference if not with contempt.

But in the light of modern investigation we are coming to know what men of science and knowledge have all the ages overlooked, that the real enemies of human life lurk in the apparently insignificant features of life, in many of those objects which have hitherto been regarded perhaps as harmless pests merely. The fact is now coming to the front that the agents of death lurk all about us thick and close, and we must take heed to our humbler associates some of which we have tolerated with indifference during the past. It never has been considered very pleasant by real neat people to have houseflies swarming about the house and ravaging about over the food we were soon expecting to eat. No one was ever able pleasantly to regard the busy fly who seemed to take a particular fancy to our physiognomy while we were trying to enjoy a midday siesta, but nothing further was thought of him except that he was a nuisance that must be more or less tolerated. So with the flea, always known as an intolerable bore, but now known to be, with the fly, a bearer of disease and death. The mosquito, too, is now charged with the murder of countless thousands of human beings, while a few years ago he was regarded as only a cunning invader of our restful hours. The mice and the rats, and even the dogs and the cats, are now under indictment as mediums for conveying to us and our homes the germs of many deadly maladies. The infinitesimal germs of disease are, so to speak, seeking every possible conveyance by which to invade the human system. And it certainly behooves

us to be fully aware of the modes most commonly utilized by them. And as we discover the favorite mediums of the elements of disease, we should seek by all possible means to avoid them.

Housekeeping in the future must include the art and science of guarding the family health by the most careful exclusion of the agents of death. We all know now that the long list of acute diseases that prey upon the human family are caused by the invasion of the deadly germ; and it is no part of wisdom in us to pass this important knowledge along with an idle jest, as though it did not relate to us personally and was a matter of interest only to those who make a study of and write about those things.

The housefly should be driven out of the land. No housekeeper should tolerate the unclean and hateful thing about her house. The time was when even vermin and vicious insects were tolerated in palaces and homes of the rich, but now the housewife is disgraced who permits such noxious and unclean things about. So let it be in regard to all the undesirable things which would infest our homes if permitted to do so, but which can be exorcised and excluded with sufficient care and a determined effort.

The first thing to be done is to do away with everything that attracts and harbors these undesirable pests. Mice and rats should not be allowed to prey on the food in the cellars or garrets. Flies should not be able to find decaying and bad-smelling refuse upon which to feed, and if no attractions are offered to undesirable guests they will be more easily disposed of and excluded. The harboring of useless cats and dogs about the house should not be tolerated. Children are better off without these pets which too often become agents of sickness and death. If we would afford to our homes the best protection we must draw the lines of exclusiveness against all unwholesome intruders.

GRADUATING EXERCISES

Of the Sanitarium School of Domestic Science and Household Economy

THE commencement exercises of the above school will be held in the Sanitarium chapel on the evening of June 7. Mrs. Olaf N. Guldin, of Fort Wayne, Ind., chairman of the Home Economic Department of the General Federation of Women's Clubs, will deliver the principal address. The title of her address is, "Newer Ideals of Citizenship."

Two classes will be graduated, the first in dietetics, the class consisting of the following five ladies: Miss Leah Hubbard, Miss Flora Sell, Mrs. Rena B. Maycock, Miss Ruby

Ketcham, and Miss Margaret Waters.

In the housekeepers' course the following class of young ladies will receive graduating honors: Mesdames Edith Plum and Alice Weeks; Misses Aileen Holmes, Mabel Hotterter, Fannie Perin, Cora Leedy, Lorraine Sterling, Ethel Stump, Phebe Tuller, Helen Ick, Louise Groves, Ruby Parker.

WHAT THEY EAT

(Continued from page three)

isfactory to every reasonable person; and it is found that

Most People Are Exceedingly Reasonable, and ready to accept a good thing when they really see it.

And when they come to the Sanitarium tables, which are always loaded with a most pleasing and attractive assemblage of the various products of nature carefully prepared and beautifully arranged, the people who may have been in doubt as to whether they could really subsist on the Sanitarium diet are at once conscious of the fact that their doubts have taken wings never again to appear along that line.

Dairy Products

Milk, cream, butter and eggs are still tolerated and are found on the menus of the sanitarium. These products of the dairy farm are, however, carefully examined and at all times subject to the closest scrutiny. Farmers who furnish the eggs must stamp their names upon each egg as a guaranty of its freshness. Dairies are frequently visited, and the milk and cream are subjected to frequent analysis in the laboratories. The butter used at the Sanitarium is manufactured on the premises and is made from pasteurized cream. It is as clean and pure as it is possible for butter to be made.

With these observations before the reader, it will not be difficult for him to decide for himself as to the merits of the Sanitarium bill of fare. In all candor it may be claimed for it that it is the most inviting, the most satisfying, nutritious, healthful and delicious system of food to be found on earth.

A Sample Letter

A gentleman from one of the large Eastern cities, who was of the class referred to, after a stay of one week at the Sanitarium sent out to twenty of his friends a letter, a copy of which fell into our hands, containing the following good words:

"The heading on this sheet will tell you where I am. This is the most magnificent institution of its kind in America, a model place for sick people to recover their health. The buildings, grounds, and equipment are beyond comparison. The physicians and attendants are kind and perfect in attendance and treatments of their patients. The table board is fine,—no meats, tea, or coffee, but fruits of all kinds put up in the finest styles, good bread and butter, fruit juices, and a variety of vegetables and other foods, all brought on to the tables in splendid style and in quantity sufficient for all."

REST AND EXERCISE

(Continued from page one)

learned something concerning this principle, yet there seems to be much that we do not know. This force, or whatever it may be called, is the thing that heals us when we are sick, and that keeps us well when we are well. One reason why I wish to keep this before you is that people usually pin their faith to

Something They Take into Their Bodies

—some drug or bitter-tasting medicine, or something of that kind, and think that is the thing that is going to cure them. That is not so. In order to get and keep the body well we must operate along two lines. One of these is to increase the efficiency or the activity of this vital principle that is in our bodies; and the other thing is to remove the obstructions, take the hindrances out of the way, so that this principle will have free course and a free field in which to operate. Whatever the physician or the nurse may do, their patients must be directed along one or the other or both of these lines. They can do nothing effectual in any other way.

The reason that the cold bath does good is because it brings into greater activity this vital principle within our bodies. Apply the whip to a horse, and the horse moves quicker, draws a larger load. The whip does not put any energy into him, but it gets energy out of the horse. So a cold bath does not put any energy into you, it gets energy out of you. It stimulates the vital forces.

Sometimes there are obstructions so that the vital principle can not operate. These possible obstructions are very numerous. They may consist of germs in the lungs. The activity of the germs, or the action of the poisons which they produce, is a hindrance to the normal forces of the body. A man gets the germs of pneumococcus into his lungs, and he has pneumonia. Nature makes a tremendous effort to save that man from death. The temperature runs high and he has a fever. We look upon a fever as a serious thing, and yet it is an effort on the part of our bodies to protect us against these germs that cause the fever. If we can get rid of the germs, the fever will subside.

This is an important matter and might well claim the entire evening, but I wish to bring to your attention

The Good Effects of Rest and Exercise.

Rest helps all of the vital forces, and in other ways exercise also helps the body. It is always, however, this same vital principle operating in the body that cures whenever one is healed. We can divide life into four great periods: infancy and childhood, adolescence, middle life, and age. And we see certain changes which occur in each period of life. Life may be subdivided into many periods, some of them short and others longer, and in each of these periods there are certain definite changes occurring in our bodies peculiar to those periods.

During the period of twenty-four hours there are certain well-defined changes that occur in our bodies. For instance, we awake in the morning and feel rested, and our cells

are large and well filled with material and energy for the duties of the day. Thus we feel strong and vigorous and ready for our work. We find our pulse is slower in the morning than in the evening. If we take our temperature, we find it higher after breakfast than before breakfast. And in the evening our pulse is more rapid than in the morning; our temperature is higher than in the morning; our nerve cells are exhausted, and we have become tired. The vital changes that occur in renewing the body are entirely made during rest; the heart beats less rapidly, the breathing is slower, the circulation of the blood is not so rapid, oxygen is stored up in our tissues while we are sleeping, for use the following day.

The Point I Wish to Emphasize

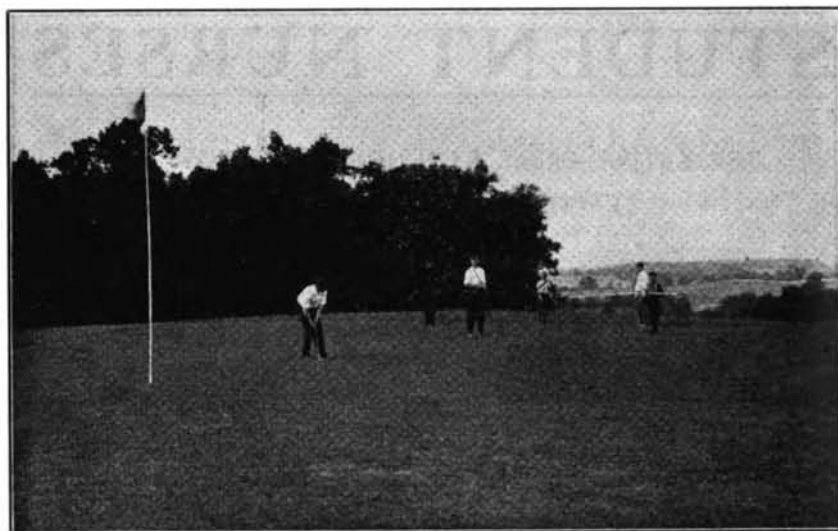
is that during activity and during the day changes take place in our bodies different from those that occur at night when we are resting. And so you see by rest we can bring certain activities and changes into prominence; and by activity we can bring other forces into prominence; and it is for this reason that rest is required by some patients, and exercise is better adapted to others.

The best form of rest is sleep. During sleep we are unconscious; sensations are abolished; we can not feel pain, nor touch, nor heat, nor cold; we do not see light, nor hear sound. While asleep, all the sensations

are discontinued. There is no motion, at least very little, while we are asleep. The muscles of the body are at rest, and, as a rule, all of the functions of the body are asleep. While we are asleep the heart beats slower, we breathe less; we take in oxygen; the secretions are diminished; the body is running at a low speed, and the different organs of the body are at rest to a greater or less extent. There are certain organs, like the heart, that must be kept active, and yet the heart gets quite a period of rest between each beat; and this is one reason why in some diseases we are anxious for the patient to sleep much, so the heart will beat slower, and get some rest between beats.

A Healthy Adult Ought to Have Eight Hours' Sleep

out of the twenty-four. Time spent in good, healthful sleep is well spent; but if we do not get good rest out of our sleep, we are losing time. There are some people who can get along with less sleep than others. Some can do very well with six hours; but as a rule eight hours for the normal individual is better than less. In early life the young child should sleep fourteen to sixteen hours of the twenty-four. One reason that the child grows rapidly is that it sleeps. We do not grow while we are active. We do not increase in weight when we are walking or running or jumping or working; we are losing weight, though the exercise we take



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during the day may conduce to our putting on weight at night. If one exercises properly in the day, he gains more at night; but one never gains in weight while working. The exercise stimulates nutrition, increases oxidation. Material is being given off through the lungs, skin, kidneys, and other eliminative organs when we are active, but we gain weight when we are resting.

A Man Who Sits in His Office

day after day is thin, his blood is poor, his muscles are soft, and he does not sleep well. Let him get out of doors, and get to work. That man needs exercise to stimulate nutrition and to induce sleep. The exercise in the daytime is necessary to stimulate the processes that go on in the body at night. There are certain diseases where rest is very useful. Some years ago Dr. Weir Mitchell, of Philadelphia, made popular the so-called rest-cure treatment for nervous exhaustion, for hysteria, and other allied troubles. I do not think the idea originated with Doctor Mitchell, although he is entitled to some credit in the way of making the method popular with the profession and also with the laity.

Rest is a valuable amelioration in the treatment of nervous exhaustion, hysteria, and allied conditions, and in certain forms of mental derangement like melancholia, mania, insomnia, and other conditions in which it is best to keep the patient quiet. The rest-cure treatment as developed by Doctor Mitchell consisted in having the patient go to bed. The patient was usually a woman suffering from nervous exhaustion, perhaps overworked from her social duties, or who had in some way used up her nervous forces. She was isolated, put under the care of a nurse, not allowed to make her toilet or to feed herself, or do a single thing, because the doctor wanted to conserve her nerve force. She lived on a milk diet and was treated with electricity and massage.

That mode of treatment does not always work out well because of the ill effects of the isolation and enforced inactivity. I remember a good many years ago I tried it on some men patients, and it did not work well with them. Men do not like to be confined in a room or sent to bed.

We Can Modify This Rest-Cure.

We can tell the business man to give up his business cares and get a complete change, send him into the woods and into the fields; a change of occupation is rest. Perhaps he may come to the Sanitarium. We should tell him to go to bed early and to get up late in the morning; and tell him to go to his room and lie down and rest two or three hours in the middle of the day. In that way he can take the rest-cure in a modified way. This is a very excellent thing for people who have used up their nervous energy.

The function of sleep is very sensitive, and it is well for us to sleep undisturbed, and we should get to bed regularly and avoid anything that will disturb us. Rest can be used in many other diseases besides nervous exhaustion and hysteria, and different forms of mental derangement. We put a man with fever to bed to conserve his energy so he will have a better chance to fight the fever.

When the physician examines the patient and finds he has typhoid fever, he will do just as the faithful mariner does when he is in a stormy sea. He can not stop the storm, but he can take good care of his ship and guide it into harbor safe and sound. And that is what the physician can do for the patient with typhoid fever. He can not very well stop the raging of the fever. But he can take good care of the patient and conserve whatever strength he has to fight the fever, and so bring him into the harbor of health all right.

Rest is Also Useful

in all forms of painful disease. A man with articular rheumatism, inflammatory rheumatism, rheumatic fever, locomotor ataxia, or sciatica, should be put to bed and given proper rest, and he will be greatly relieved. Of course there are other things to be done, but rest is very important.

Take another case: a young man has inflammatory rheumatism and endocarditis, or inflammation of the lining of the heart. He gets over his rheumatism all right, but he has a leak in his heart. When the valves of the heart leak, the heart has to work more, and the muscle becomes larger because it does more work. Well, the heart accommodates itself to that, it makes up for the deficiency by an increase in the size of the muscles, and he gets along all right. But at last the muscle of the heart gets weak, and it is not strong enough to control the flow of blood through the body, and symptoms of dropsy develop. Dropsy is merely a symptom; it is not a disease; there is always something back of it. The best thing in the world for

that man is to go to bed. Rest takes much of the work off the heart. The pulse is about eighty beats per minute when we are standing; about seventy-two per minute when we are sitting; and about sixty per minute when we are lying down; so there is a difference of at least twenty-five per cent between standing and lying down. In case we are running, the count is very much more. And all this illustrates in a very practical way the benefit of rest in certain diseases.

(To be continued)

ARRIVALS

THE list of arrivals at the Battle Creek Sanitarium for the week ending May 28 is as follows: Chas. Wolohan, Mich.; Geo. E. French and wife, Neb.; Rev. Chas. A. Blanchard and Frances C. Blanchard, M. D., Ill.; Mary Bekins, Ia.; Della Sunstrom, Mich.; G. W. Clifford, N. Y.; Justine Wade, Pittsburg; N. P. Starr and wife, O.; J. L. Mortimer, Ind.; Mrs. Wm. Rockwimple, Utah; Mrs. E. W. Tresholm, Chicago; Mrs. J. Surriek, Mont.; S. Watts, O.; W. F. Piteher, Ill.; Dr. E. R. Gordon and Oliver Hayward, Ind.; J. O. Liddon, Miss.; Miss J. R. Benedict and Loraine Benedict, Mich.; Rev. Chester Bireh, wife and daughter, Ind.; Mr. H. L. Snediker, Kansas City; Miss Emily Foster, Chicago; Miss W. Ward, O.; E. D. Dowry and wife, and F. W. Welch and wife, Wis.; P. M. Bobb, Chicago; Mrs. Flora E. Bruster, N. C.; Hon. Benj. S. Hanchett, Grand Rapids; L. R. Netzel, Chicago; John J. Collins, Detroit; S. H. Zekind

and B. H. Berson, Chicago; Dr. Howard Burns and Edw. H. Affer, Ill.; W. H. Jones, O.; Rev. E. T. Fox, Mrs. Fox and daughter, Toronto; Mrs. F. Kreissiee and Chas. Daly, Chicago; Mrs. Nancy Brown and Earl Human, O.; G. D. Pirnie, Mass.; Wm. M. Pugh, Mo.; Alfred E. Judd, Neb.; J. H. Wood, Wis.; J. D. Denny, W. I. Shambaugh and Mary M. Shambaugh, Pa.; A. D. Harris and wife, N. Y.; Rev. W. Dring and Mrs. Dring, Kans.; Mr. and Mrs. J. W. Baird, Ind.; John H. Masten and J. C. Snyder, Mich.; Geo. Girth and wife, O.; G. W. Moe, New York City; Elizabeth Schermerhorn, Mich.; John M. Love, Miss.; Mrs. J. L. Wirt, Fla.; Miss Emma Garrick and Mrs. Anna Barr, Ia.; Mrs. S. A. Panks, Mrs. Bessie McLean and Master R. T. Banks, Ark.; J. S. Wright, La.; Flora Steele, Va.; Ralph C. Wilson, Miss.; Emma Timmermeister, O.; Mrs. Geo. J. Wiedeman, Mont.; W. F. Piteher, Ill.; R. P. Moore and wife, City; J. A. Bassette and J. T. Given, Ky.; Wm. H. Thurber, R. I.; E. W. Prescott, Boston; Monroe H. Howard, Mich.; Dr. Jane W. Sholfeld, Salt Lake City; Mrs. Geo. E. Browning, Utah; Mrs. D. Ricketts, Tex.; Mrs. Elliott Norton, Chicago; Mrs. G. H. Beckmann, Ia.; M. J. S. Nolan, Minneapolis; W. L. Hayden, New York City; Dr. J. H. Hough, Miss.; Miss M. L. Jones, Kalamazoo; Rev. R. A. Hardie, Mrs. Hardie and Robert Hardie, Korea; H. M. Buth and wife, N. Y.; Frank Monna and wife, Brooklyn; A. A. Coburn, Mass.; Mrs. M. K. Howe, City; P. O. Boyde, Calif.; Wm. E. Thomas, Boston; Arthur E. Schultz, Calif.; J. H. Schultz, Denver; Miss M. L. Conard, Ia.; S. F. Robichaux, Tex.; Ruben Treblecock, Mich.; Geo. H. Hill, Chi-

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cago; W. W. Weathers and E. R. Weathers, Ky.; W. S. Hovey, wife and daughter, Mich.; J. V. Byrns, Kansas City; I. D. Goss, Ind.; M. Ferguson, West Indies; R. G. Cash, Denver; Geo. H. Allen, O.; Mr. and Mrs. W. H. Gearhart and Mabel Gearhart, Ill.; Dr. J. E. Finley, O.; E. H. Finley, O.; J. H. Bowman and wife, Tex.; Geo. D. Schermerhorn, Mich.

News and Personals

Rev. and Mrs. W. J. Shambaugh, missionaries in Changsha, Hunan Province, China, are among the recent arrivals at the Sanitarium.

Mr. and Mrs. Wm. Dring, missionaries from Assam, who are taking their vacation in this country, have returned to the Sanitarium for a further period of rest and treatment.

Mr. and Mrs. J. H. Bowman, of Plano, Texas, are again with us as guests of the Sanitarium. They have frequently spent the summer here in the past.

Judge R. N. Cash, of Denver, an occasional patron of the institution for the last twenty years, is again with us and is greeted by many who remember him very kindly.

The Class Day of the graduating class of the Sanitarium Domestic Science School will be held in connection with a class outing at Goguc Lake on Monday, June 5.

Mrs. L. B. Kerr, of Honolulu, with her daughter Kathleen, is visiting Dr. Elizabeth Kerr-Harris of the Sanitarium staff, also a daughter of Mrs. Kerr. It is hoped that Mrs. Kerr will remain with us during the most of the summer.

The class day exercises of the graduating class in the Nurses' Training School will be held in the Sanitarium chapel on the evening of June 5, when a program of unusual merit is promised, and from the quality of the talent embraced in the class, is fully assured.

Mr. C. F. Moore, of St. Clair, Mich., of the Diamond Crystal Salt Company, is always a welcome guest at the Sanitarium, where his genial qualities have made him many friends. On the present visit, Mr. Moore is accompanied by his daughter.

The time of the usual chapel services last Sabbath was occupied by the Sabbath school children in Children's Day exercises, under the direction of Dr. S. E. Barnhart, superintendent of the Sabbath school. The children acquitted themselves with credit, a large audience being present to witness their exercises.

The baccalaureate sermon will be delivered to the graduating classes of the Sanitarium Nurses' Training School and School of Domestic Science, on next Sabbath, June 3, by Prof. Charles A. Blanchard, President of Wheaton College, Ill. The services will be under the charge of Chaplain McCoy, and special music will be provided.

Mrs. W. C. Palmer, of Brooklyn, has been spending a few days at the Sanitarium, visiting Mr. and Mrs. Schermerhorn, of Reading, Mich., where they are prominent in the business and social world. Mr. Schermerhorn's son and daughter are also frequent visitors to their parents during their stay with us.

The Sanitarium managers have installed an outfit of electric fans in the main dining-room, located on the sixth floor of the Sanitarium. The fans are ornamented with beautiful clusters of electric lights which also add to the illumination of the room in the evening. A similar fan and light pillar ornament the desk in the main lobby.

Mrs. M. S. Foy, Miss Leona Sweet, and Miss Margaret Kirschman, as representatives of the Battle Creek Sanitarium Training School for Nurses, are in Boston this week attending the National Convention of the Nurses' Association, and also the meeting of the American Association of Nurses' Training School Superintendents. They expect to return early in the following week.

Dr. R. A. Hardie, wife and son, from Seoul, Korea, missionaries for the Methodist Church, South, are resting and recuperating at the Sanitarium. Doctor and Mrs. Hardie went to Korea in 1890, and have consequently been observers of the remarkable revolutions that have taken place in the country since that time, when it was known as the "Hermit Kingdom."

On Thursday, June 1, the members of the Senior class from the Michigan Agricultural College School of Domestic Science visited the Sanitarium. The class consists of about twenty-five ladies. They were entertained by the Sanitarium School of Domestic Science, and the hospitalities extended to them were fully reciprocated in an inspection of the Sanitarium and its work, in which the young ladies took special interest.

The last meeting of the Christian Endeavor Society was led by Misses Way and Silverthorn, the general topic being, "Missionary Work," represented by Korea and Japan. Several short addresses were given, both historical and descriptive, and the meeting altogether was one of profit and interest. The meeting on next Friday evening will be conducted by Dr. W. F. Martin, it being a consecration meeting, the general theme being, "The Life of Samuel."

The graduating exercises of the Nurses' Training School will take place on the evening of June 6 in the gymnasium. The principal address will be delivered by Dr. Mariah S. Headland, of Ann Arbor, formerly physician for the court ladies in Pekin, China. The graduating exercises of the Sanitarium School of Health and Household Economics will be held on Wednesday evening, June 7, in the Sanitarium chapel. Mrs. Olaf Guldling, of Fort Wayne, Ind., chairman of the Home Economy Department of the General Federation of Women's Clubs, will give an address on, "Newer Ideals of Citizenship."

The Christian Endeavor services on the evening of the 19th were conducted by Mr.

Fred Butler, the celebrated Gospel singer, who with his wife has been spending a few weeks at the Sanitarium at the close of their busy season. Mr. Butler is a singer of unusual talent and is credited by Dr. Wilbur Chapman as being the best living expositor of the Gospel in song. Mr. Butler has on frequent occasions delighted the Sanitarium family with his beautiful rendering of sacred and secular songs, in which he was accompanied on the piano by his estimable wife. It has been a source of pleasure as well as of profit to have these friends with us.

On the evening of Wednesday, the 31st, in the Sanitarium gymnasium, the Sanitarium School of Domestic Science gave a very excellent exhibition of their work and courses of study. Booths were arranged under the galleries, in which the various crafts and sciences taught in the school were illustrated, such as chemistry, bacteriology, sewing, table setting and serving, household and institutional laundry, cookery, household economics, gymnastics, etc. There was also a sale of cooked foods and of light refreshments. The proceeds are to be devoted to the purpose of procuring books for the use of the school. This school has now completed the fourth year of its history, which has been in all respects the most successful of all.

We present this week two more beautiful views of the Sanitarium Annex, showing portions of the massive building and the beautiful lawn by which it is surrounded. Within, the building is rapidly undergoing transformation at the hands of a skilful corps of decorators and is fast approaching the state of completion. Within a few days it will be thrown open to the patrons of the institution. The appointments of the place are in every way complete, and the rooms, both private and public, are both comfortable and elegant. This great addition to the Sanitarium plant will be a worthy associate of the main building itself, and it is expected that this addition to the capacity of the Battle Creek Sanitarium will be ample to meet the requirements for some time to come. No one now need hesitate in regard to coming during the rush season.

As announced last week, the MacWaters Quartette, of Boston, visited the Sanitarium on the afternoon and evening of May 27th, holding a Gospel song service on the lawn in the afternoon, and giving an entertainment in the gymnasium in the evening. The quartette consists of the following gentlemen: Messrs. Oakes and Slutz, tenors; Thomas, baritone; and Schultz, basso. These young men have recently graduated in their theological studies, and being fully charged with the evangelistic spirit, contemplate a missionary singing tour around the world, visiting various mission fields for the purpose of observing the work and assisting in the same. Their object during the present season is to accumulate sufficient funds to enable them to start out on this worthy undertaking. Both as singers and speakers, and socially these gentlemen are well calculated to win their way into the hearts and confidence of the people wherever they go. Their voices blend delightfully, and their entertainment was chaste and uplifting in every way.

THE BATTLE CREEK IDEA

VOLUME IV
NUMBER TWENTY-SEVEN

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PUBLISHED WEEKLY AT BATTLE CREEK, MICHIGAN. JUNE 9, 1911

Rest and Exercise

A Parlor Lecture on the Uses of These Factors in the Treatment of Disease, by Dr. W. H. Riley

(Concluded)

HAVING spoken of the benefits to be derived from rest in the treatment of certain
(Continued on page five)

HOW THE SANITARIUM RECEIVES PATIENTS

Physical Examinations the Basis of Diagnosis and Treatment—Every Case is Thoroughly Investigated by Scientific Procedure

FORMERLY, physicians relied in diagnosis and treatment almost wholly upon symptoms.
(Continued on page three)

The Miracle of Healing

Dr. J. H. Kellogg, in a Parlor Lecture, Discusses the Phenomena of Healing, of Life, and Creation

THE majority of people think crudely in relation to creation. Usually those who talk about the cosmos, and about the genesis of things rarely get beyond the kindergarten



GRADUATING CLASS OF THE SANITARIUM TRAINING SCHOOL FOR NURSES

stage. It is necessary for us to cast off the idea that having once created the world and established a certain order of events, the Creator then withdrew and has since simply looked on. In the presence of the results of modern research and inquiry, it is necessary for us to recognize the fact that

The Power That Made Us

is still with us. God did not make us and then set us adrift, but stayed with us and must stay with us so long as life lasts. The supreme Power that created us is with us all the time, supervising every function of our bodies. Now, the miracle of healing is really nothing more than the miracle of life. The same Power that created us does not desert us when we are sick. Healing is not different from creating, which is going on continually.

As an illustration of that, we might speak of digestion. Before receiving food the lining of the stomach is pale. After food is swallowed the whole mucous membrane of the stomach becomes congested, having a bloodshot appearance; very soon the gastric juice begins to pour out in drops, as perspiration starts from the brow. The process of digestion has now begun. Every time a person eats, he has congestion of the stomach; and if a person eats continually, this condition of congestion will become permanent, and by overeating, or by too frequent eating, the stomach gets, after a while, into a state of permanent congestion.

The Normal Way for a Man,

after he has eaten, is to give his stomach a chance to rest; and in this period of rest the stomach is restored, the congestion is removed, the stomach returns to its normal state.

The stomach lining contains little pockets which are lined with curious cells, and in each one of these cells is a large number of little granules of stored-up energy. The little cells are packed full of these granules. But after the stomach has been working for some time, these granules disappear, and the store of energy which was gathered in there is spent. While the stomach rests between meals, these granules reappear, and are gradually gathered in again.

There is a process of rebuilding, or creation, by which these granules are created where they did not exist before. The stomach that has been digesting a meal for several hours becomes fatigued, exhausted, and needs to be restored, and

This Process of Restoring is the Process of Healing.

But if no opportunity for rest is given, there comes finally a state of permanent crippling and injury, and the stomach is diseased.

The very same thing is true of muscle work. Hard work wears out the muscle. Rest and sleep is a healing process by which the worn, fatigued parts are recreated, restored to their normal state.

What we call disease involves conditions somewhat different from the conditions that prevail in our normal lives, but they do not differ so very much after all. Disease is only the exaggeration of natural conditions. Somebody asked me some time ago if I really knew anything about how a neurasthenic felt; and I said I surely did, for I had had

neurasthenia myself. "Is that so?" "Yes," I said, "I have had it a great many times. I have worked all day, and all night, perhaps, or all night and the next day and half the next night, until I was in a bad state of neurasthenia, but I had a chance to go to bed and sleep, and in a few hours I was cured." So I have had a good many experiences with nervous exhaustion; but the man who calls himself "neurasthenic" does not go to sleep and wake up cured; that is the difference. Fatigue and work exhaustion are cured by rest. When a man is neurasthenic, he has gotten to a state where he can not rest. He is in a state of chronic weariness, of chronic exhaustion. His trouble is that he has lost the power to store up those little granules of energy; he can not accumulate energy; there are toxins in his body which paralyze his nerve centers and so inhibit the activities which otherwise he would be capable of.

I mention these illustrations so that you may get the idea, if I can possibly convey it to you, that disease is not a thing so far different from the things which we experience in our everyday lives; it is only the natural forces of the body operating under unnatural conditions. It is the body seeking to carry a load heavier than it ought to bear. If a person is bilious, he is so, not because his liver has ceased to act, but because the poisons have accumulated in his body in such large amount that the liver is not able to deal with them all, is not able to keep the blood clean and pure, and so to keep the body in a normal state. What that man needs is not something to repair his liver; he needs to lessen the work of his liver by discontinuing these poisons, so that the liver will not have this excessive work to do.

We used to think fever was a thing that was to be combated. Now we know that

A Fever Is Curative.

For instance, if a child has diphtheria, and has a rise of temperature, the purpose of that rise of temperature is to cure the child. The fever is necessary. A child with diphtheria without any fever is in a great deal more serious condition than with the fever, because fever is a healing process. The elevation of the temperature is one of the things necessary for the destruction of the bacteria, the infection which is making the child sick.

The most wonderful thing we see connected with disease is the manner in which the

Body Adapts Itself to Emergencies.

A very good illustration of that occurs when a nerve is cut. It used to be supposed that when a nerve trunk was cut the only way in which that nerve could be restored was by starting at the root and growing out the whole length of the nerve, because nobody could see how it would be possible for all these delicate fibers which make up the nerve, perhaps one twenty-thousandth of an inch in diameter, ever to get matched together again so that the right ones were joined. You can imagine what would happen if a nerve from the little finger were to be joined to a nerve in the thumb. If you wanted to move the little finger, it would be the thumb that would work instead. But more recent

observations have shown that the nerve may actually be repaired, and that in this bundle of perhaps 10,000 minute filaments each one finds its mate. What a wonderful thing that is! The process may be illustrated like this: A telephone wire cable is broken. Perhaps there are a hundred different wires in that cable. How are they all to be matched together again? But you should see one of the copper wires in one end of the cable moving about in various ways, and touching the wires in the other end of the cable and finally fixing itself to one of them and growing fast. That is exactly what happens when a nerve is cut. These filaments grow out, examine, test out each one of the different corresponding nerve filaments in the other part, and finally attach themselves, and each filament attaches itself to its mate. And in that way the repair is effected. We can readily see that such a thing could not happen without intelligent control. In the process of repair, there must be an intelligent control of each of these active elements.

When the skin has been torn off, a new skin must be created to cover that raw surface. When a nerve repairs itself, it is because there is

An Intelligence at Work

superintending that repair. Now, the same thing is true in every part of the body where there is a healing process going on.

Here is a man who has pneumonia. We examine his blood and find perhaps the ordinary number, six or seven thousand, of white cells in a little drop of blood; in two or three hours he will have a hard chill, and then there are twenty-five or thirty thousand instead of six or seven thousand white cells, and perhaps at the end of twenty-four or forty-eight hours it may be 100,000. The cells are enormously multiplied. We make another examination and find fifteen or twenty billions of new cells have been created in the blood for the purpose of saving this man's life.

In pneumonia there is an infection of the body. We used to think pneumonia was a disease of the lungs, but now we know that it is a disease of the whole body, a general infection with a local manifestation. The entire body is sick, and these little blood-cells are multiplied in enormous numbers for the purpose of fighting off these germs. If the number produced is sufficient to destroy the germs, then the patient recovers; and by frequent examination of the blood it is possible to tell how the battle is going, just as possible as it is for the general to stand off on a hill somewhere and watch the contending armies and tell whether his forces are being weakened or are gaining ground. So, by examination of the blood, the intelligent, up-to-date physician can tell just how the battle is going in a case of pneumonia.

Here is a man who has typhoid fever. He lies there day after day, week after week. We see him going down, his tongue coated, his fever running 101° 102°, and sometimes considerably higher than that. He goes down two or three weeks, possibly four weeks, then all of a sudden he begins to come up. A careful study of this matter has shown that when the patient has gone on with typhoid fever for two or three weeks, there is a change in the body.

The Body Has Produced Certain Substances

in the blood which are antidotes for the poisons of the typhoid fever; certain new bodies are present that were not there before, so the typhoid fever germ will no longer grow and flourish in the blood, and the germ is weakened and killed off, or its toxins are neutralized to such a degree that the man can recover. And after he has once had typhoid fever in this way he is not likely to have the disease again, because the body has acquired the power of fighting typhoid fever germs, and the ability to produce certain substances which were introduced during the typhoid fever; and in this way the man's life is saved.

What a marvelous illustration this is, my friends, of an intelligent act within the body to bring in an emergency procedure. It requires something that you and I can not do,

Something Beyond Human Power.

The very same thing happens when a man has smallpox. Smallpox germs get into his body and the man is going down day after day, till by and by a point is reached where the body produces these antidoting toxins in sufficient quantity to combat the poisons. The same thing happens in diphtheria when recovery occurs, and advantage has been taken of this by an ingenious scientist, Professor Erlich, to produce a condition in the blood of a horse in which there is a tremendous power of resisting diphtheria. He injects some of the poison into the horse, and in a short time some more, until after awhile it is possible to inject into the horse's blood a thousand times as much poison as would have killed him at the first. His blood acquires the power of resistance to the extent of a thousand times what it had in the first place. So a small portion of serum from this horse's blood injected into the body of a child would be sufficient to protect the child against the diphtheria poison; and that is the philosophy of antitoxin.

So we see, so clearly that no scientific man will undertake to deny it, that there is abundant evidence that there is within the body an intelligent force continually at work.

We hear people discussing divine healing. I am a thorough

Believer in Divine Healing,

because I believe in divine creating. I think that one of the most important things for sick people to get into their minds, is the fact that healing is a divine process, that it is a corrective process. It takes exactly the same power to heal a man that it did to create him. What are we going to do about it, then? There is only one thing we can do, and that is to get ourselves in harmony, to get in line with the divine will and plan. That is the only thing we can do. Somebody suggested that the greatest thing anybody needs to do is to get in tune with the universe. When one thinks of the great universe, he can not think otherwise than of harmony, because the great planets circle around the suns, and the suns are all circling around other great centers somewhere, and there is perfect harmony. In all the processes of nature there is evidence of marvelous harmony. The Power behind it all is working for us, is working in us, and does not forget us. When a man is sick, the Power

that made him is interested in him, and is right there with him, working for him, doing the best it can to cure him; and if there is any man that is not cured, it is only because his conditions are such that he can not be consistently cured. This Power works in harmony with the great law of consistency. We must not think of God as an unlimited being. He is limited by his perfection. God can not do any unreasonable or inconsistent thing. For instance, God can not cure a man of tobacco heart as long as he keeps on smoking. He has been doing for him everything he possibly could do under the circumstances. If he had not, the man would have died. The first time a man ever smoked he would have died on the spot if it had not been that the Power that made him sustained him and enabled him to combat that poison; so he has been healed as far as he could be healed all the while. If he ceases to use tobacco, then he will get well, so far as it is possible for him to get well. He may be irreparably damaged. The old prophet said, "Cease to do evil, and learn to do well," and that is the whole thing after all. As I said, it is to get in tune, to get in harmony with the Creator.

undertaken, which was no more sure to be correct than the preceding one.

Experience gave the physician a degree of skill in interpreting symptoms, but he was ever liable to stumble at a time when he needed to be right.

Gradually, Helps in Diagnosis

were introduced. The thermometer, the stethoscope, and other accessories were brought forward; but there was still great room for uncertainty until the laboratory with its analyses and demonstrations was appealed to, to banish doubts and make absolute certainty of that which had always been more or less of a speculation.

The Battle Creek Sanitarium adopted the system of laboratory research years ago, and has spared no expense to make the work of physical examination as complete and as absolute as modern science can aid in making it.

Before Undertaking the Treatment

of a case the Sanitarium doctor feels that he must be sure of the ground on which he is to proceed. Nothing must be taken for granted. Symptoms are taken only for their actual value, which is sometimes a very large dis-



THE LOBBY IN THE NEW SANITARIUM ANNEX

HOW PATIENTS ARE RECEIVED

(Continued from page one)

The tongue was observed, the pulse counted, and the patient was questioned about his sensations and observations on his own case. And from such evidence the doctor formed an opinion as to the nature of the trouble and as to the remedies that would best meet the emergency.

Too often the

Symptoms Were Treated as Enemies

and every effort was made to abate or remove them. They were not always considered in their true character, as danger signals to be regarded as friendly indicators of more serious conditions.

But symptoms were not always sure and specific guides in determining the nature of abnormal conditions. They indicate trouble, but are apt to be ambiguous as to the actual nature and origin of the trouble. So the doctor who depended upon symptoms to guide him in forming his opinions and prescribing remedies frequently found himself balked and puzzled. A change of procedure must be made, and another line of treatment

count on their apparent value, and their real value is determined finally by the results of actual knowledge.

All patients who come to the Sanitarium are not required to take a complete laboratory examination, the extent being dependent upon the nature of the trouble.

A Full Examination

includes the following tests: blood, urine, feces, sputum, gastric, muscular, nervous, weight, heart, lungs, etc., and in many cases radioscopic or X-ray. These tests are analytic and specific rather than general; they are of a nature to leave no doubt as to the exact condition of the patient, for it will be seen that every one of the vital functions is investigated and every portion of the human body comes under scientific inspection.

Armed with such knowledge as these examinations give, the physician is not at a loss to know, beyond guess or peradventure, just what his patient requires, and so he knows just what measures are best adapted to correct many conditions and check disease.

The Process of Cure

consists simply in removing hindering causes
(Continued on page five)

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EVERY HOME A SANITARIUM

A FEW years ago the term "Sanitarium" was not known. A sanatorium was understood to be a sort of a convalescent hospital provided for soldiers. Institutions of this sort and under this name are maintained by the British government at Darjeeling in the foothills of the Himalaya mountains and at other places in India and elsewhere, and such institutions formerly monopolized that term.

The name originally given by its founders to the Battle Creek institution was, "The Western Health Reform Institute." That was at a time when the terms "reform" and "reformer" invariably carried with them the mental image of a long-haired fanatic with a disagreeable hobby of some kind. Such people were plentiful in those days, they invaded every field of ethics and economy, and always called themselves "reformers."

When it was decided to divest the Battle Creek institution of every vestige of faddism and quackery, and place the work on a thoroughly rational and scientific basis, it became necessary to take down the original sign and substitute one which in the public eye would better represent the real character of the work.

"Sanatorium" would not answer because of its association with the idea of a military hospital or health resort. Fortunately another and more appropriate word more etymologically accurate in expressing the desired idea suggested itself to the one who now had charge of the institution and its future. The term "sanitarium" was for the first time given to the world when it was applied to the Battle Creek institution. From the Latin *sanus*, meaning sound, healthy, as a basis, we have *sanitas*, an equivalent term, sanitation, and sanitary, all expressive of soundness, health, hygiene; and it was the most natural thing to coin another term on the same string and have *sanitarium*, a place of sound health, a home of hygiene and healthful conditions, a resort where people seek health, where the soundest, sanest truths of healthful living are inculcated.

The publication of the new name called forth some weak criticisms from a few whose philological world is covered by the dictionary, but it took exceedingly well,—how well is attested by the numerous enterprises of widely varying character which have adopted it.

What this article started out to say is that the more real sanitariums there are, the bet-

ter it will be for the world. The only source of regret is in the multiplication by people who appropriate it for commercial purposes and have no regard for making the places to which they recklessly apply the name sanitary or hygienic.

The ideal conditions will be reached only when every home is a sanitarium; and there is no good reason why, in this country at least, this should not be the case. Two obstacles alone stand in the way of such a consummation: the ignorance and the indifference of the people, who thus fail to realize the vital importance of this matter. If every home were a real sanitarium, a home where sane principles of living were upheld and practiced, then there would be no need of the large assemblages of invalids of all sorts who resort to various places for the purpose of being relieved from the consequences of wrong methods practiced at home. Simple conditions of living, simple food, simple furnishings, simple clothing, a social life devoid of the perplexing complexities of modern society, business and labor going forward under reduced pressure,—let these prevail in

this school occurred in the Sanitarium gymnasium on the evening of June 6. The class of 1912 took charge of the decoration of the hall, which was very beautiful and artistically carried out. The following program constituted the exercises of the evening, the music being rendered by the Sanitarium orchestra under the direction of Mr. Wm. T. Drever:

OVERTURE—Orpheus *Offenbach*
INVOCATION *Pastor G. C. Tenney*
MORCEAU—Dawn *Vannoh*
ADDRESS *Dr. Mariam Headland*
Possibilities
CLASS REPRESENTATIVE *Miss M. Gerow*
Opportunities
SEXTETTE from "Lucia" *Donizetti*
PRESENTATION OF DIPLOMAS—
Dr. J. H. Kellogg

BENEDICTION

The motto adopted by the class was, "To go about doing good." Class colors were crimson and white. The class roll was as follows:

Clara Brenneman, Illinois; Theodocia



ON THE SANITARIUM GOLF LINKS

the home life, and life will become a pleasure instead of a burden. The place to cultivate health is at home rather than in some special conservatory of health. Rather, let each home be a conservator and a promoter of this, the greatest of all earthly blessings.

AN INTERESTING OCCASION

ONCE each year the Battle Creek Sanitarium Training School for Nurses turns out a finished class of professionals thoroughly educated and trained in the methods and principles of nursing, along the lines of physiological therapeutics. Two classes are formed each year, but by placing the graduating exercises midway between the time of admission, it is found practicable to merge the two classes into one class with two branches, and thus one graduation suffices for both branches.

The annual Commencement Exercises of

Bowen, Wisconsin; J. C. Barker, Michigan; Arthur Gershem Best, New York; Winnifred Hale Carson, Michigan; Margaret Emeline Coleman, Nova Scotia; Carl Christensen, Denmark; George Arthur Charnley, Rhode Island; Kathryn Dunham, Missouri; Estella Eleanor Edwards, Ohio; Alice Viola Evans, Kansas; Matilda Elizabeth Galsgie, New York; Minnie Lee Gerow, California; Jennie Eloise Howe, New York; Margaret Farnsworth Haller, Missouri; Jessie Wadellton Hale, Canada; Anna Adeline Johnson, Wisconsin; Robert V. Jefferson, Washington, D. C.; Ruby Stone Ketcham, Michigan; Georgiana G. Knight, Canada; Clara Josephine Lehman, New Jersey; Bessie E. Slade Lucas, England; Edna Miller, Kansas; Sarah McDonald, Ohio; Merrill Pike, Michigan; Anna Mary Smith, New York; Lawrence Marion Smith, Tennessee; William Scott, Missouri; Ralph Eugene Shelden, Michigan; Nora Dell Talbott, Ohio; Percy

Tanner, New Jersey; Loucinda E. Viers, Illinois; Anna Laura Wells, Minnesota; Louise Margaret Wright, Wisconsin; Mabel Walker, Colorado; Winifred Margaret Way, Indiana; Thomas Yepez, Mexico.

The addresses of the evening were particularly appropriate and the thoughts well chosen. Mrs. Dr. Headland, the principal speaker, was for many years physician to the court ladies of the Chinese Empire and spoke from the viewpoint of a wide practical experience in the possibilities of the life. She was intimately acquainted with the Dowager Empress, and in her address drew many practical lessons from the life and experience of this most remarkable character of human history. We shall be pleased to present her address more fully next week.

HOW PATIENTS ARE RECEIVED

(Continued from page three)

and supplying needed force and energy to weakened vital action. All depends upon the inherent vitality of the patient's system to respond to treatments and to resume healthful activities as assistance is given by the various measures brought into requisition.

There are very few whose cases have passed into the hopeless state. As a rule people who come to the Sanitarium are those who have tried almost every other means, and have waited until diseased conditions have become chronic and fixed, and they have decided to try

The Sanitarium as a Final Resort.

Still the methods and principles employed here are so natural and so perfectly adapted to assisting exhausted nature in resuming its normal courses, that even in desperate cases they usually avail and the patient is able to recover comfortable health and efficiency.

This fact is largely owing to the ability of the Sanitarium physician to understand intelligently the exact condition of his patient in every department of the vital economy. Medical practice that is scientific and up to the times has nearly done with experimentation and has passed the days of empiricism into an exact science where it is well known that, provided the patient possesses the required vitality to respond to treatment, certain measures will produce definite results.

Later we shall describe in detail the work done in some of the branches of laboratory work as conducted at the Sanitarium, where a considerable force of expert analysts are constantly employed in their investigation of the causes and conditions of all sorts of complaints that flesh is heir to.

REST AND EXERCISE

(Continued from page one)

ailments, let us now consider how exercise, the opposite of rest, may be utilized to remove disabilities and to check diseased conditions. A man who has been sitting in his office day after day does not need rest; he needs some good vigorous physical exercise. This will stimulate the muscles of the heart; and as his heart gets strong he will improve

in general health and strength, and by taking good care of himself, may last for years longer than otherwise.

Here is a Man Who Has Worked in an Office

for several years as a bookkeeper. He is perhaps a young man of a nervous temperament, which to a certain degree is a very good thing to have; but there are some who have inherited a type of the nervous temperament with little resistance, and this is the case with this man. He breaks down easily, and he needs a rest from his occupation; but he should not be sent to bed to take the rest cure. Let him rather change his occupation,

and labor with his hands at work that will bring him into the open air a good deal. It may be a little hard for him at first, but he should begin with light tasks and work up his muscles gradually. In a short time his whole system will be changed and normal action will be restored. Sometimes we hear of an individual who has writer's cramp. There are two things that cause writer's cramp. First, the individual has a nervous system that is not very strong; and second, he has been writing excessively and in an improper manner. The first thing is to stop writing. There has been too much exercise of certain parts, and the trouble can not be cured except by giving these parts rest. But

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offers exceptional advantages to those who contemplate taking up the Nurse's profession. A Three-Years' Course is offered to Women, and a Two-Years' Course to Men. Over two hundred Nurses are employed in the institution.

The demand for Nurses who are trained in the Sanitarium principles and methods is constantly increasing, both in the institution and outside. A good salary awaits those who finish the course.

In addition to the usual subjects taught in hospital training schools, special attention is given to all branches of physiologic therapeutics, including hydrotherapy, radiotherapy, electrotherapy, 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.

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SANITARIUM - - **Battle Creek, Mich.**

at the same time other muscles that have been neglected should be brought into more vigorous use.

Sometimes when we want a patient to gain in flesh, we tell him to take exercise. There are certain cases where exercise stimulates nutrition, and the patient will take on flesh. A man who has been inactive will gain in flesh by proper exercise. What, then, in a general way, does exercise do for the body?

What Exercise Does

Exercise increases the rate and force of the heart-beat, and in this way increases the circulation of the blood. It forces the blood into the extremities. Exercise increases the respiratory function. One must breathe deeper after exercise; more oxygen is taken into the lungs. Exercise increases the oxygenation of the blood; that is, more oxygen is taken into the blood when one exercises. This is a very important consideration. Exercise increases oxidation; that is, it increases the union of oxygen with the other elements of the food. Exercise increases the heat production of the body. This body of ours is like a furnace in which a fire is burning. When the fire burns bright, we are in good health; when the fire burns low, the vital forces are low; and when the fire goes out, life is extinguished. There are people who suffer from cold hands and cold feet because their heat-producing function is not working properly. This function is one we often fail to remember. We think about our stomachs, digestion, liver, heart, nerves, but forget to look after the heat-producing function. This is really a very important consideration.

Exercise forces the blood from the internal organs out into the extremities of the body. This is a very important thing, for there are many people who suffer from congestion of the internal organs. This is frequently caused by a prolapsed condition of the viscera. The internal organs drop down out of place, and the blood stagnates there and the organs become congested. I examined a man the other day whose stomach was at least six and one-half inches below where it ought to be.

A very important thing to do is to get the abdominal muscles toned up and the organs back in place, and thus get fresh blood in and the old blood out. Blood that does not circulate is of no use. If you have good blood properly circulating through healthy organs, you have good health. I think that is about as good a definition of a healthy state as I can give—good healthy blood properly circulating through healthy organs.

Exercise Increases the Number of Blood Cells.

All of these statements are the results of experience, and have been demonstrated over and over again by experiment. Exercise increases the appetite. Exercise increases the secretion of gastric juice. Exercise aids in emptying the stomach by increasing the muscular activity of the stomach. Exercise increases the muscular activity of the intestine; and when the bowels become inactive, one of the very best measures to adopt is to take exercise, because it increases the stomach contraction and the peristaltic action of the intestine.

Exercise increases the function of every



Keep the Health You Have Regain Your Lost Health

Two very significant words—*keep* and *regain*. At the bottom of every success or failure lies the question of **HEALTH**.

No one ever has perfect *health*; but every one knows, vaguely, that he feels better, and can work better, on some days than he can on others. Such a degree of *Health* brings *Efficiency*, and in these days of competitive struggle *Efficiency* spells *Success*. When you know how to live, then, and then only, will your body be *efficient*. Our booklet

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organ in the body. We are apt to associate exercise with the muscles only, because the muscles are the most active part. Of course, exercise builds the muscles, makes them strong, and improves their nutrition. Exercise not only builds the muscles, but the brain and nerves; it improves every organ in the body.

Exercise, in order to be beneficial, should be taken systematically and daily, and properly graduated, beginning with a little exercise and gradually increasing it. It does not do any good to take a great deal of exercise to-day and none to-morrow. It does not do any good to have enthusiasm for exercise this month and none next month; it must be kept up. That is the point where many fail.

At the present time the human family is suffering from a

Large Number of Chronic Disorders.

Statistics show that Bright's disease, heart disease, hardening of the arteries, and other chronic disorders, have enormously increased in the last twenty or thirty years. These are what we may call acquired diseases. Of course heredity has something to do with it in some instances; but the greatest cause of it all, I have no doubt, is poisoning. The man who smokes may not feel arteriosclerosis now, but it is surely ahead of him. And this is true of all bad habits of living; they bring a crop of disease sooner or later.

Exercise Reduces Fat

How is the man who is very obese going to get rid of his fat? There is only one thing to do, and that is to burn it up. One way

to do that is to exercise. When a man exercises, he is expending or consuming energy. By expending unusual energy in exercise and diminishing his food supply, the surplus fat is consumed—burned up in the form of energy.

Exercise increases the strength of the heart. Here is a person of sedentary habits who takes no exercise; he gets out of breath easily, and on slight exertion his heart beats violently. That man's heart muscle is weak. The best thing for him is to take a course of exercise to strengthen his heart. For when the heart beats more, it works harder, it is strengthened and built up, like any other muscle, by exercise.

Autointoxication

There are many people who suffer from what we call autointoxication, or self-poisoning, from poisons that are generated in the intestine, particularly in the lower bowel. And these poisons are absorbed into the blood and carried to the brain and different parts of the body, and the patient has a sallow skin, coated tongue, and other symptoms that are the result of self-poisoning. There are certain germs which cause these poisons, and there are certain elements of food that are favorable to the growth of the germs. Nitrogenous or protein foods offer a fertile soil for these poisons. There are certain substances called ptomaines and toxalbumins that are formed out of the nitrogenous elements of the food. These are reabsorbed and carried to the different organs of the body. In this condition one should depend mainly on food containing what we call carbohydrates. The condition may be greatly improved by keep-

ing the nitrogenous elements of the food low. Give proper attention to the digestive tract; this is important. Drink plenty of water. These poisons are soluble and circulate through the blood, and the drinking of water sends them out through the eliminative organs. Take plenty of outdoor exercise. These poisons are very volatile, and escape through the breath. Thus a person who has autointoxication usually has a bad breath. The best thing to do for this is to go outdoors and take exercise; for thus the respiratory function is increased, and more poisons thrown off through the breath.

So we learn that exercise is a valuable thing, but it should be taken intelligently, of course. If a person is weak, it should be taken under the direction of a physician. But one who is healthy and strong, of course, does not need to be so cautious, and he should take plenty of exercise to ward off diseased conditions.

ARRIVALS

THE following guests registered at the Battle Creek Sanitarium for the week ending June 4: Mrs. Wm. Bashfield, O.; Mrs. L. H. Fairchild, New Orleans; Louis Kellogg, Porto Rico; Mr. E. B. Jewett, W. Va.; Mrs. J. A. Robinson and Jas. M. Robinson, Ky.; C. H. Hosemeyer, Ia.; W. N. Foster and wife, N. Y.; Chas. F. Cox, Tex.; Mrs. Warren, Neb.; N. C. Bradford, Jr., Tex.; J. S. Niswander, O.; Elizabeth Schermerhorn, Mich.; Clinton Winslow, Ind.; J. C.

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News and Personals

Dr. J. P. Soliss and wife, of Sapulpa, Okla., are newly arrived guests of the institution.

We are glad to welcome among us Mr. P. O. Boyd, of Fresno, Calif., a frequent visitor and patron of the Sanitarium.

Mr. Paul P. Gaylord, vice-president of the Continent Trust Company, of Denver, Colo., is taking rest and treatment at the Sanitarium.

Mr. S. H. Standish, general manager of the Racine (Wis.) Steel Castings Company, entered the institution for a course of treatment last week.

Mr. L. Gerlinger, president of the Salem Falls City & Western Railroad Co., registered with us last week. Mr. Gerlinger was accompanied by his wife.

Dr. E. Myers, of Springfield, Ohio, is visiting at the Sanitarium for a short time. Doctor Myers travels all over the United States giving lectures in the interests of modern chemistry.

Mr. J. E. Brulatour, of New York City, an importer of goods from France, arrived at the Sanitarium last week for a course of rest and treatment. Mr. Brulatour is a warm friend of Mr. Horace Fletcher.

The men's outdoor gymnasium is being doubled in size and completed by the addition of a large swimming pool. The dimensions of the pool will be 100 x 35 feet, with a depth of nine feet—one of the largest in the country.

Among other improvements now in progress on the Sanitarium lawns is the building of three new tennis courts in addition to the three already in use. This will afford good opportunity for those who enjoy this healthful and invigorating sport.

The graduating exercises of the Sanitarium School of Domestic Science and Household Economics were held in the Sanitarium chapel on the evening of the 7th instant. We have only room to say this week that they were of a most interesting and creditable character, and will be spoken of more in detail in our next paper.

The golf links are patronized by a large number of Sanitarium patients and guests who daily enjoy this famous game. We presented a view on the links last week and this week are pleased to give another view of these grounds, which are admirably adapted to the game. Those who wish to visit the golf grounds should see the desk clerk, who will give full information.

The baccalaureate services for the graduating classes of the Nurses' Training School and Domestic Science School were celebrated last Sabbath. As previously announced, the sermon was by President Chas. A. Blanchard of Wheaton College, Ill., and was certainly a masterly effort, affording an unusual degree of edification. Chaplain McCoy and Doctor Kellogg participated in the exercises of the hour, and the music was under the charge of Mr. Drever.

Among the most recent arrivals at the Battle Creek Sanitarium we note the following: W. L. Merry, formerly of California, U. S. ambassador and representative at Costa Rica; Mr. A. H. Cross, of New York, representing the *National Post*, a newspaper projected by the Success Magazine Company; Mr. O. S. Carlton, of Houston, Tex., vice-president of the Great Southern Life Insurance Company; Mr. J. A. Alexander, of Detroit, president of the A. B. Stove Company.

Numerous improvements will be noted by old patrons who return this summer. The shrubbery, flower beds and grounds never looked so well. A number of old buildings are being moved away, opening up large lawn spaces and pretty vistas. A beautiful porte-cochere is being placed over the drive at the main entrance. The outdoor sleeping

quarters on the roof garden are being enlarged and decorated. Progress is always the order of the day at the Battle Creek Sanitarium, and never more than just now.

The work of fitting up and settling the Sanitarium Annex is proceeding so well that the building will be open for guests by the 12th inst., and none too soon, as the constantly increasing number of guests make it imperative that additional provisions shall soon be made. But with the opening of this fine building with its magnificent appointments, all difficulty in this direction will disappear for this season at least. The views we have already published of the building and its grounds will readily convey to our readers some idea of the unusual attractions of this beautiful and quiet place.

On last Friday evening the usual meeting of the Sanitarium Christian Endeavor Society was held, the occasion being a consecration meeting led by Dr. M. A. Mortensen, the theme being "The Life of Samuel," from which, by the leader and others, most interesting and practical lessons were drawn. The early dedication of the child to the service of God, the influence of a mother's prayers, the annual gift of the little coat by which the heart of the mother and child were bound together, were points especially made prominent. "Why I Love Christ" is to be the subject of the meeting on next Friday evening.

We direct attention to the fact that the main library of the Battle Creek Sanitarium is located on the second floor of the College building, where the members of the Sanitarium family will find a fine class of reading both in books and periodicals. This reading room has the competent care of Mrs. Eva Bell Giles and Miss Lilian Babcock, who will take pleasure in giving every attention to the inquiries and comfort of the guests who may visit the room. The reading room on the second floor of the main building is a branch of the main library. Quite a number of new publications may be found on the shelves of the library, and the racks contain perhaps the most extensive list of magazines and papers in the city.

THE SPECIAL EDITION

We are printing a large edition of the special number of the BATTLE CREEK IDEA and will be glad to send extra copies to any who may desire to place this number in the hands of invalid friends.

ANNUAL MEETING OF THE MICHIGAN SANITARIUM AND BENEVOLENT ASSOCIATION

THE regular annual meeting of the Michigan Sanitarium and Benevolent Association for the year 1911 will be held in the Chapel of the Battle Creek Sanitarium, on North Washington Ave., Battle Creek, Michigan, Thursday, June 29, 1911, 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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NEW IDEALS OF CITIZENSHIP

An Address Before the Graduating Class of the Sanitarium School of Domestic Science, by Mrs. Olaf W. Guldlin, Chairman of Home Economics, General Federation of Women's Clubs

I BELIEVE that domestic science teachers and workers hold the keys that are to unlock

GRADUATION WEEK AT THE SANITARIUM

Two of the Schools Conducted Here Celebrate Commencement with Appropriate Exercises—Large, Fine Classes in Both

THE past week witnessed the graduation of fifty-four students who have finished

LIVING LONG AND LIVING WELL

Doctor Kellogg Claims that an Ancient Relative Lived for a Millennium—Keep the Blood Pure and the Heart Right

My theme to-night will be, How to live long and well. When in Vienna a few years



THE GRADUATION OF NURSES OF THE BATTLE CREEK SANITARIUM

many of the problems that confront us; that they are to replace chaos with order, and that the best part of civilization is yet to come.

(Continued on page five)

courses of study and training that fit them for places of large usefulness in supplying the world's greatest needs. Thirty-seven of

(Continued on page three)

ago, I visited the famous Doctor Winternitz, who is professor of hydrotherapy at the Royal Medical School at Vienna. While I was there, the Professor and Mrs. Winter-

nitz gave a dinner to which I was invited. During the course of the dinner, it was noticed that I did not eat any meat, and one of the ladies said to me:

"Doctor, I think you are the most original man I ever met," which was a very polite way of saying that she thought I was a crank.

I said, "Why, this idea of living on a non-meat diet did not originate with me; if it had, I should have very little confidence in it. It is because it is old, and because it is the original diet of man, that I have confidence in it."

She replied, "Do you think one could live to be very old on such a diet?"

"Why, certainly; I had a relative who lived on this diet to a very great age."

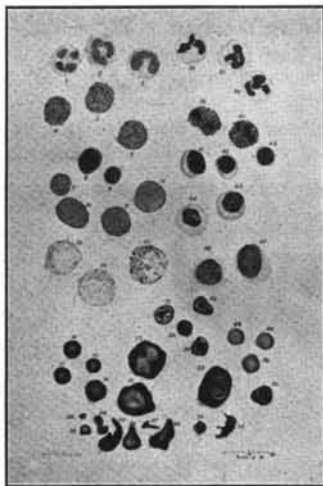
"Is that so? How old did he live to be?"

"Well, I am afraid to tell you, for fear you would not believe me."

"Oh, yes, we should believe you."

"Well, he lived to be nearly a thousand years old."

"O-o-o-h!" Evident incredulity.



BLOOD-CELLS

A doctor across the table said, "Just tell us his name." I answered,

"His Name Was Adam."

We seem to be quite content if we can only live to be sixty or seventy years old, but we frequently find people sixty or seventy years old who are still quite vigorous. We had a visit here some years ago from Dr. Stephen Smith, of New York, who was then over eighty years old; and a short time ago I received an invitation to attend a banquet given to him by the leading physicians of New York to celebrate his eighty-seventh birthday. He made a very interesting and a very appropriate address on this occasion. This fine old gentleman is

Eighty-seven Years Young,

—his hair as white as snow, his skin as clear as a child's. He has no brown circles around his eyes or freckles on his hands; his arteries are still soft; and he is likely still to be young at a hundred years of age.

It is astonishing how satisfied and willing we are to be killed off at fifty or sixty years

of age by disease germs of some sort. We ought rather to be ashamed to be old in body while we are still young in years,—to be tumbling into ruins when we ought to be still in our prime.

The Trouble is, We Do Not Live Right.

We have departed far away from the normal conditions of life. A man is very likely to live as long as his heart, his kidneys and liver are young. He can get along with a very miserable kind of a stomach if he only has a young heart, young kidneys, and a young liver. We have such a great excess of lung capacity that we can get along with a small portion of our lungs. We use less than one-tenth part of our lung capacity in ordinary breathing; so if we are not going to exercise in a violent way, we can get along with small lung capacity. But we can not get along with small liver capacity, because it is the duty of the liver to keep the blood clean; and that is a thing of the greatest importance. The most essential thing for life is clean blood, because it is the blood that maintains the life; it is the blood that heals. And if the blood becomes unclean, then the whole body rapidly falls into decay.

I was just saying that we are young so long as the heart is young. The heart is a muscle, and it has a great work to do; it has the biggest job of any organ in the body. That little muscle, only the size of the fist, does work equal to lifting 124 tons one foot high every day. This seems almost incredible, but the heart does its work one beat at a time, seventy-five beats a minute, lifting so many ounces at each beat; and if we take all those little lifts and put them together, we have a total of 248,000 pounds which that little muscle has to lift one foot every day.

It Makes a Great Difference

whether that little muscle is supplied with clean blood or with foul blood: it makes a wonderful difference whether or not it is saturated with alcohol, tobacco, or caffeine, and the poisons of mustard, pepper, pepper-sauce, ginger, and things of all sorts that produce the putrefaction that is going on in the colon; it makes a wonderful difference what kind of blood it is that goes coursing through these veins to support that living pump.

It is the duty of the liver to keep the blood clean by filtering poisons out of it. It is the duty of the kidneys to keep the blood clean by separating poisons from the blood, so that it can carry them off. Post-mortem examinations have shown that of all people sixty years of age, seventy-three per cent have degenerated arteries. That means that three-fourths of all the people who die between the ages of fifty and sixty years have old hearts, and that is the primary reason why they die.

You have perhaps noticed that most of the people who die of pneumonia are either infants or old people; the babies die because their hearts are not yet strong. An infant that is carried around in arms is a very sedentary person, and has not taken exercise enough to get a strong heart yet; and an old person who has become too feeble for exercise has a weak heart from lack of exercise or from senility; and if he gets pneu-

monia, he is pretty certain to die, because his heart has not the power to withstand the paralyzing effect of the poisons which are circulating in the blood of a person who has pneumonia.

We Need to Think More About Our Hearts,

and take better care of them. The good Book well enjoins us to "Keep thy heart with all diligence, for out of it are the issues of life;" and it applies equally well in physical and moral matters. If we do not exercise, the heart gets weak just as any other muscle of the body gets weak. When one is lying in bed, the heart has only to move the blood in a horizontal plane, but when one is sitting or standing and going about, working, the heart has to circulate the blood in the body in a vertical plane; it has an immensely greater amount of work to do. We must take good care of our hearts if we want to live to be old. That is one thing of vital importance. The majority of people die of heart failure; because if the heart were able to keep on with its work, they would not die at the particular time they do, at any rate.

The blood is the most wonderful tissue of the body, for it is really a living, fluid tissue, a sort of circulating market, because it carries around foodstuffs to the other tissues, and takes back from them the waste substances that have been used. The red cells carry the oxygen which feeds the tissues; and the clear portion of the blood, the plasma, carries the dissolved materials which are to be made into tissue.

There is another class of cells known as white cells; they really are transparent, free from coloring matter, and as you look at them through a microscope, they appear as minute transparent bodies. There are several varieties of these white cells; and they possess a remarkable quality by reason of which certain varieties take a stain of one color and reject all others; and each variety takes a different stain from the others, so that by means of stains it is possible to distinguish a number of varieties of these living white cells.

About Seven Thousand

of these white cells are found in a minute drop of blood not so large as the head of the smallest pin, every one of them a perfect, living creature that can feel, smell, taste, digest, that can move about, just a little drop of living jelly, but it is the ultimate living substance, protoplasm, and it has all these properties in one without being differentiated.

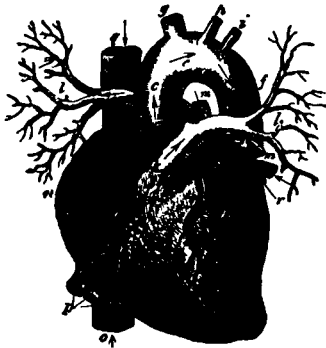
Some of these white cells go around through the body and gather up the material that is not useful any longer, carry it off to a sort of garbage box, the spleen, or to the liver, in which it is deposited, and finally dumped out of the body. Some of it is carried out through the skin and so thrown off from the body; some by the lungs, but principally through the kidneys and colon. Germs are the very greatest of all the enemies of human life. They get into the body, multiply rapidly, and clog up the blood-vessels and the tissues. The worst of them manufacture poisons which attack the body in a variety of ways, setting up degenerations, paralyzing the nerve centers, and producing

a great variety of unpleasant symptoms. So these white cells are the defenders and the scavengers of the body.

This is not a fairy tale or an imaginary story I am telling you; it is what we know to be true. In the illustration are some of these same white cells that have become diseased. You can see how imperfect they are. In pernicious anemia their appearance is very similar. These white cells may become degenerate, and so lose the power to do the work which they ought to do; or they may multiply in great numbers in the blood and attack the body itself instead of attacking the rubbish, and do it damage.

When the Body Itself Becomes Deteriorated,

these cells sometimes invade the tissues. That is what happens to a man who has fatty de-



THE HEART

generation from the use of alcohol. That is the reason why, as the pugilists say, a man "fails to come back"; he has lost the power to recuperate. He has lost it because his tissues have undergone degeneration and are debilitated by the inroads of these white cells. We have a very good illustration of this in what these cells do to us when the hair becomes gray. Each hair is a tube that has liquid in it, and in this liquid are minute pigment cells, colored granules. The white cells steal away the coloring matter, and the hair becomes white because it has been robbed of its coloring matter. In the same way these creatures attack our brains and rob our nerves. They steal away the kidney substance, and Bright's disease is produced by the kidneys being robbed by the white cells, which naturally are scavengers; but they have seized upon the body itself and are destroying it, because of the diseased condition into which the body has come through wrong habits of life. It is in this way people get locomotor ataxia and paralysis. That is the way we lose our memories and become stupid in old age, and we get apoplexy because these cells attack the blood-vessels of the brain.

These cells are induced to do this destructive work by the taking of poisons into our blood which destroy and paralyze the heart. These same poisons, when taken into the blood, destroy the blood-vessels, destroy the brain through setting up wrong action of these white cells. These poisons are, for the most part, products of germs. Some of them we take in as poisons, like alcohol, tea

and coffee, tobacco, and various other poisons we may inhale. There is opium, strychnia, and other drugs including morphia, that have a similar effect; but the worst of all poisons are those that are generated in our bodies, poisons that are formed in the colon, produced by the putrefaction of undigested remnants of foodstuffs. We are coming to appreciate that more and more. For thirty-five, or nearly forty years now, the world has been learning about ptomaines and leukomains, and other poisons that are generated within the body, but only within the last few years have we come to appreciate the real havoc these poisonous substances work in the body when their action is unrestrained.

GRADUATION AT SANITARIUM

(Continued from page one)

these were students in the Sanitarium and Hospital Nurses' Training School, and seventeen were the products of the School of Domestic Science and Home Economics.

We are glad to be able to present the photographs of these classes just as they appeared on the platforms, surrounded by the beautiful decorations provided for the occasions.

The Graduation of Nurses

took place in the gymnasium on Tuesday evening, June 6, and that of the Domestic Science students took place in the chapel on the following evening. We were able to speak of the former last week, giving brief reference to the features of the program.

The address of the evening by Mrs. Mariam S. Headland, M. D., was a fine production, both in the choice of the theme and its treatment. We have room for but a mere outline, though the address will be given entire in the July issue of the *Medical Missionary*, published at this office.

Doctor Headland chose for her subject the word, "Possibilities," and said, in part:

It is my purpose to bring briefly before you two women who have recently died. Both became famous and for seventy-six years they lived contemporaneously. One held in her hands the welfare of one-fourth of the human race, and the eyes of the leaders of the great Powers were often fixed intently and suspiciously upon her. Toward the other the thoughts of the civilized world turned lovingly and reverently in acknowledgment of a deep debt of gratitude.

The Dowager Empress of China

for forty-seven years held in her keeping the lives and the peace of four hundred millions of subjects. She began life in a humble sphere, but became the chosen concubine of the emperor, and fortunately the mother of his only son, and was raised to the high position of wife. Upon the death of the emperor, which occurred shortly after, she had the diplomacy to be appointed regent, a position she held during her son's minority. Almost immediately after reaching that age he died, and the woman in power selected as his successor another little child and continued as regent during his minority. After the emperor took his position she dethroned

him and openly assumed the imperial power, which she retained until her own death, and she selected her own successor. Thus it will be seen that she became successively the concubine of an emperor, the mother of an emperor, the wife of an emperor, the maker of two emperors, the dethroner of an emperor, and for forty-seven years ruled in a vast empire where women were not recognized as having power or even standing.

She held the power of life or death over every person in that vast empire, and she frequently exercised that power.

The Other Woman

was of English parentage, and even as a child her heart was filled with pity for the sick and afflicted. She did not choose the narrow, selfish part of society life, as she might have done. Dancing, visiting, and living for her own enjoyment did not satisfy this young woman; she took a broader view of life, and chose a life of service. We find her in Kaiserwerth, an inmate of a deaconess' home, where it is said, Pastor Friedner gave her the scrubbing of the floors. She desired to learn all he could teach her of nursing, and if the training must come in that way, well and good. People who take the time to defend their professional dignity are not likely to rise very high in any profession.

Soon we see our young woman at Scutari, bringing order out of chaos, and peace out of torment in those great hospitals peopled with thousands of sufferers. She gave herself so wholly to her work that she became indispensable to others. Her loving, unselfish service won for her the title of

"The Angel of the Crimea."

Florence Nightingale and her band of white-aproned nurses were doing a work that angels might be glad to accomplish. The world recognized that work and gave her the credit that was her due. God is still looking for instruments with whom he can touch the world. To those who are most faithful he gives the widest spheres of service.

Florence Nightingale prepared herself for service by consecrating all her powers to humanity. She put a loving thought into action; and following her example, we have hundreds of young women like you going out each year to help suffering humanity, with "tenderest helpful hands as Christ in Nazareth."

In the Days of Florence Nightingale

there was no opening for the trained nurse except in hospitals, and even then she had to prove her usefulness. She has now demonstrated that she is not only indispensable in institutional work, but in the homes of both rich and poor as well, in the army, the city, the settlement, the school, and the foreign mission field.

To make the very best of your powers and opportunities, it is necessary for you to have high ideals, both professionally and personally. I have heard a famous surgeon professor say to his class, "Never operate on a case without first asking yourself, Is this what I would have another man do to my own best loved friend? If you can conscientiously say that it is, then go ahead; but

(Continued on page four)

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OUR ANNUAL CROP

DURING the past two weeks the Sanitarium has reaped its annual harvest of nurses and housekeepers. A glance at the pictures of these two classes will justify the satisfaction with which these fifty-four young people are presented to the world as workers in its utilities and needs. Over two thousand of such nurses have gone forth from our training school, and are for the most part bearing burdens and responsibilities in behalf of the world's suffering. This of itself is indeed a noble offering, one of which the giving affords the Sanitarium managers a very great degree of satisfaction. The School of Domestic Science is much younger in years, but is, we trust, destined to meet an equally urgent want in the same satisfactory and effectual way. Besides these two schools, the Sanitarium conducts a very efficient school in physical culture. This school has been in operation but a few years, but is doing advanced work in preparing young men and young women to go out as physical directors, lecturers and teachers.

Mrs. Guldin, in her address before the graduating class, published in this paper, points out some of the world's greatest needs, and indicates some of the sources from which suffering, misery and sin spring forth. The sovereign remedy for these ills is education. Ignorance is the soil in which wretchedness is indigenous. Darkness breeds death, disease, and evil of all kinds. Light and knowledge drive the forces of darkness from cover and bring in the life-giving elements of progress, of life and vigor.

It is a glorious time in which to be young and vigorous, with the opportunities of a lifetime before one. But amidst all the calls and inducements held out to the young man and the young woman who is looking forward wistfully for the best chance, it requires a well-defined aim and purpose, backed up by stalwart principles, to choose wisely and well. But in these schools we have presented to earnest men and women, who really wish to serve their generation, and fill up a large measure of usefulness, the most inviting opportunities. Sanitarium nurses and teachers

are being sought for more and more each year, and it is impossible to meet the demands in either of the lines of education and training represented in these schools.

Young people of good, sterling character, whose aims are noble and philanthropic, and who are willing to do good service for their fellowmen, would do well to consider these opportunities.

GRADUATION AT SANITARIUM

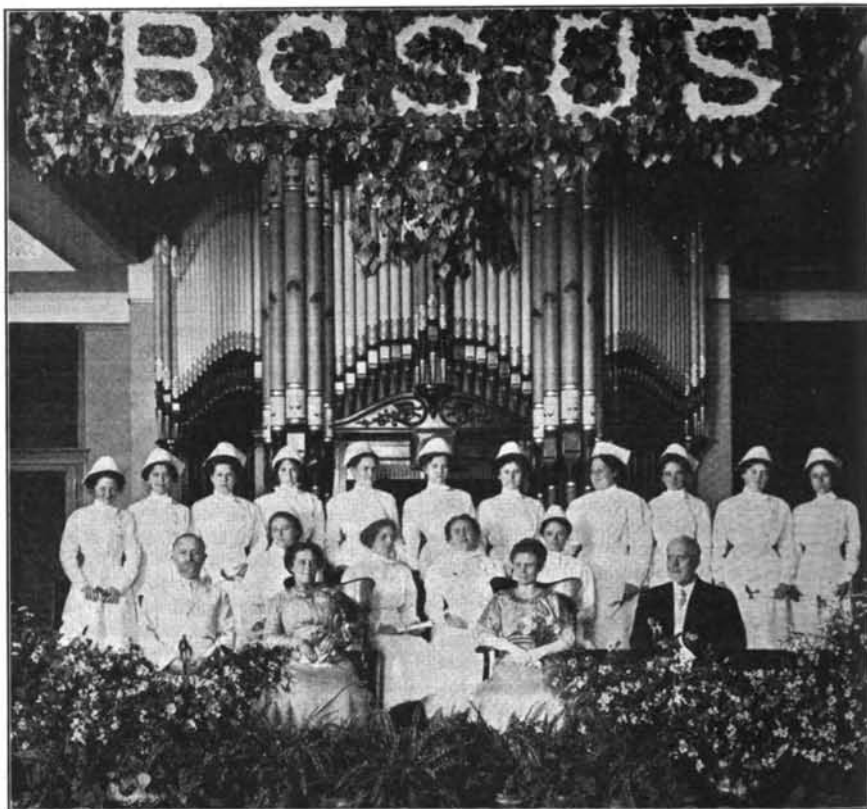
(Continued from page three)

never undertake to do for another what you would not have done for your own." You can not expect to have very high ideals if they are to be gathered from trashy books

reforms that she instituted before her death.

The great gymnasium was filled with people. The front chairs were reserved for the nurses, who marched in to the sound of music, and forming on either side of the wide aisle left a passage through which the graduating class marched amidst the applause of their many friends. The scene was a very impressive one, well calculated to inspire admiration for the large number of noble young people who are thus seeking to dedicate their lives to the service of humanity.

The presentation of diplomas was by the superintendent of the Sanitarium, Dr. J. H. Kellogg, who spoke in a few words of the deep impressions created by such an occasion, and alluded to the large volume of work in study and practice required of the students, and of their eminent fitness for the work to which they have prepared themselves. After the Nurse's Pledge had been administered to the



THE GRADUATION OF DOMESTIC SCIENCE CLASS, SANITARIUM CHAPEL

and trivial gossip. It may be in your hands to help your patients to higher ideals. You may be able to lift other souls to a higher plane of living.

In her remarks directed to the class the speaker exhorted them to high and noble aspirations, and before closing made an eloquent appeal for their help on the foreign mission field.

Doctor Headland Served as Medical Missionary in Peking

for over twenty years, and during much of that time was physician for the court ladies and was brought into close association with the Dowager Empress, and was the first to suggest to that famous woman many of the

class, the diplomas were delivered, and the exercises were brought to a close, followed by congratulations and the class picture which we present on the first page of this paper.

On Wednesday evening occurred the

Graduation of the Class in Domestic Science.

There were five students in the two-years' or dietitian's course, one of whom was absent, having been called away early to fill an important position. There were twelve who had finished the matron's course of one year. This function was held in the chapel, which was beautifully decorated with flowers and greenery and with class colors. Above the plat-

form was a transparency showing the letters which represent the name of the school. The music consisted of an organ voluntary by Mr. W. T. Drever, a song by Miss Mary Ross, and a violin selection by Miss Farquharson. The principal address was presented by Mrs. Olaf N. Guldin, of Fort Wayne, Ind., who occupies the position of Chairman of Home Economics in the General Federation of Women's Clubs. The address is given quite fully in another column, and a perusal of it will furnish the best commendation of what was an able and interesting presentation of the greatest needs of the present day in our social life.

Dr. J. H. Kellogg presented the diplomas with well-chosen and appropriate remarks, during the course of which he took occasion to refer to the great call and need of true home-makers, and commended to the class a love and devotion to the principles they had been taught as the means in their hands for the uplifting of the world as far as their influence might be cast.

Both these schools are superbly equipped for the work they are doing, and under the leadership of devoted and efficient teachers they are giving both to nurses and to home-makers the best of theoretical teaching and practical training. The classes just turned out are a credit to the institution of which we are rightly proud, and which any institution might well envy.

NEW IDEALS OF CITIZENSHIP

(Continued from page one)

I like to believe that domestic science is not a movement in itself but a part of that great world movement that is seeking to bring in a better civilization for all mankind. The problems that keep us out of happiness, health and peace of mind are not the wars and pestilence over in China, but the disorder and chaos in our own lives, in our own homes, the lack of harmonious, compelling understanding, that sets the home in order, brings it up to the highest degree of civilization and makes it really what it is designed to be, the place where the individual finds peace, rest, joy, education, opportunities; here he really grows up, realizing his duties to himself, mother, father, brother, the community and national life. The American home seems to have gotten mixed in its standards. The old ways of doing things cling to us; the newer methods have not come and we have to bring the home up to the same scientific standards that pervade every other field of enterprise.

The old selfish standards of me and mine are not the ones that are coming into view. Now we begin to realize the

Solidarity of the Race and the Value of the Individual.

In other words, the perfection and achievement of the race rest upon the complete development of all its parts. If you bring up your family with the greatest care, and give your children every opportunity, if a large part of the race standards are licentious and corrupt, your life work will be largely abrogated.

All the great reformation work that is going on is an effort to set the world in order; to raise the standard and aspirations

of the individuals. If we ever have a great race, it will be because every one recognizes his integral part. Emerson says what saints and sages have felt, you can feel. If we have a great civilization, it will be because the individual realizes his responsibility and each becomes the expression of this better life. Science has been very busy these days mastering the forces of earth, air, sky, transforming everything for the utility of man.

The Only Uncontrolled Force

now seems to be man himself. It is yet a problem whether he can be mastered. Will he never see himself in his highest sense, making material earth, these forces in himself, all clay, that yield to the orderly dominion of the highest attributes of man.

The uncontrolled man fills the earth with problems, the white slave and the black plague with scourges worse than death, with destruction, havoc. We recognize the destruction in war, but these scourges that grow out of man's uncontrolled lust and desires, we do not seem to see. These problems can not be met except as we transfer all this absorbing, compelling, masterful force to a higher plane of activity. Until we can set the world in order, and man can see a larger interpretation of himself, civilization will continue to be pretty much of a failure.

The reason that I study and talk domestic science is because I believe it is a

Saving Power that May Restore the Equilibrium of Mankind.

I believe that our ideals of civilization are not clear, and all of you who go out as teachers and workers in this chosen field have a great work to restore or create these better demands.

Electricity has to be incorporated into living conditions before its meaning to mankind can be realized; and in the same manner the scientific knowledge that relates to the home and all our living conditions must be incor-

porated into the thought and life of the masses, before humanity can be transformed by these living, vital messages. Whether it reaches the masses depends largely on the home economics teacher and worker. A new era of existence is seeking for admittance: the incorporating of economics, sociology, religion, ethics, science, recreation, and work into life.

God is Revealing Himself

in new race standards. Mankind as a class does not yet see them. Whether America evolves the superman, whether it becomes the battle ground whereon all these mighty problems are to be solved, depends largely on whether we catch the meaning of these mighty messages, whether our souls and lives reverberate with them. These messages are in the soil, the air, the child, in life itself. This, I take it, is the basic message of Emerson, Tolstoi, Ibsen, Maeterlink, our galaxy of brilliant authors, that in the unexplored realm of these material and spiritual resources all about us, in man, in his overcoming and mastering the forces in himself and in his immediate life, and in his harmonious adjustment of his environment to meet his requirements, is joy, health, evolution, physical, mental, moral.

This work of transforming all of life for all of mankind requires the united work of men and women. It is because I want to see woman take her predestined part in this great conflict that I am talking domestic science. Women are taking but a small part, compared with what they might do in this—shall I call it spiritual?—conflict which is to clean up the earth and make it a fit habitation for the future man, partly because of the continual drudgery of life, which takes the best of woman's vitality, and largely because she has little conception of a balanced life. She does not realize that real life is peace, happiness, education, self-control, work, play.

(Continued next week)

COUPON

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of interested friends who you know would like to have the in-

formation contained in the **BATTLE CREEK IDEA**, and we will send them free of charge a few sample copies. Simply write their names and addresses in the blank spaces below, cut out the coupon and mail to us, and we will send the papers.

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ADDRESSES

ARRIVALS

The list of arrivals at the Battle Creek Sanitarium for the week ending June 11 is as follows: Miss Cora Lamb, New York City; J. C. Schafer, wife and daughter, Cincinnati; J. H. Strible, Mich.; Mrs. J. B. Mooman, Philadelphia; Joseph Miller, Minn.; Miss J. Gibbs, Mrs. W. E. Jones and Mr. and Mrs. O. S. Canton, Tex.; Harold Goodholm, Okla.; W. L. Merry and Mrs. B. Merry, Costa Rica; M. J. Leidens, Chicago; I. N. Shephard, Mich.; Sam Berliner, Tex.; W. F. Findey, wife and daughter, N. Y.; Mrs. J. E. Sherman and Gladys Sherman, Mich.; J. K. Arnold and wife, and F. Shannon and wife, Ohio; Mrs. I. T. Headland, M. D., Mich.; Jas. A. Alexander, City; A. C. Johnston, Chicago; Hattie Kinney, Mich.; R. E. Ellis, Ky.; Mrs. W. W. Lipscomb, Miss Ruth Lipscomb and Louis Lipscomb, Tex.; T. H. Aagaard, Wis.; May Hiatt, Ill.; R. B. Martin, Ill.; W. B. Lewis, Chicago; Chas. Wolohan, Mich.; A. J. Nichols and wife, Ill.; A. C. Sheridan, Buffalo; Sam Berlain, wife and daughter, Tex.; Jessie Sharp, Ill.; Mrs. J. C. Nicholson, Conn.; Mrs. Edwin F. Way, Ind.; Oliver Teale, Ill.; James Corsan, Denver; A. S. Hawkins and wife, Tex.; John Holmann, Ark.; Mr. and Mrs. J. F. Gooching, Okla.; V. A. Davis, Mo.; Mrs. G. S. McKee and children, Calif.; L. Cooney, Jr., and wife, Chicago; B. F. Terrill, Miss.; C. W. Delvey, Milwaukee; G. L. Cutler and wife, Ia.; Chas. W. Hanner, Wis.; Aura Bond, W. Va.; Wm. D. Moebbs, Detroit; J. W. Shelden, Mich.; Mrs. B. S. Haywood, Porto Rico; Mr. and Mrs. Fred Colin and baby, La.; J. J. O'Connor, N. Y.; C. J. Baldwin, O.; Mr. and Mrs. J. M. Love, and Jno. and Claud Broach, Miss.; A. Porteous, Mich.; W. W. Johnson, Detroit; Rose E. Tracy, N. Y.; W. F. Pitcher, Ill.; J. B. Brant and Hugo Kallman, Chicago; Mr. and Mrs. H. J. Wallingford, Ill.; Mrs. G. P. Sandge and son, Miss L. S. Moore, Mrs. Mc-

Alphine and J. Johnston, Mich.; A. H. Carr, Cleveland; R. C. Miller, Detroit; E. Hollam, Philadelphia; Geo. A. Farnan, New York City; C. A. Hughes and wife, Ill.; Curtin Myers and C. C. Scudder, Ind.; Mr. and Mrs. Albert M. Denny, Indianapolis; John Pike, Mich.; Geo. W. Everhart and wife, and L. F. Lerbensperg, Philadelphia; C. C. Henking, W. Va.; S. R. Corneliusen and wife, Ia.; Louis Doering, O.; L. F. Kaye, New York City; Mrs. R. E. Borechlow, Ind.; M. R. Williams and wife, Okla.; W. I. Wallace and wife, Mo.; Mrs. Frank Flesher and son, Ill.; P. H. Kirwan and wife, Minn.; Jos. J. Devney, O.; J. B. Deford and wife, Kans.; J. M. Galbreath, Des Moines; Mrs. O. N. Guldlin, Ind.; Esther Rann, City; J. R. Wilber and Vernon DeFrost, O.; W. M. Dodge, Ill.; Mrs. S. R. Wagg and Miss A. M. Wagg, Wis.; J. D. Elliott, Duluth; Dora Beesley, Calif.; Mr. and Mrs. Corwin Jones, Miss.; H. E. Williams, W. E. White and E. G. Myers, Chicago; A. V. Roberts, Cleveland; J. J. Healey, Boston; R. Klemsmith, Detroit; W. R. Austin, Conn.; J. R. Patterson, Mich.; Geo. Stocker, Chicago; C. M. Easterley, Wis.; I. N. Perlstine, Chicago; Miss Daisy Bunkley, Mo.; Fred Herrick, Wis.; J. C. Armstrong and wife, Pa.; Simon Rowok, N. Y.; Mrs. Nellie Hodwin, Mich.; E. N. Wood, Miss.; G. M. Clifford, Me.; Mr. and Mrs. J. A. Holley, H. K. Holley, and Mrs. E. Long, W. Va.; Dr. and Mrs. C. M. Bush, Mo.; Mrs. P. A. McNaughton, Canada; Mrs. Hattie Veyly and Miss Comfort Veyly, Mo.; Wm. Lynie and wife, and Mrs. C. F. Walker, Tenn.; Ed. H. Kelly, O.; Nancy D. Richards and Jas. A. D. Richards, New Philadelphia; Mrs. John Keeker, Miss Hoffmeyer, and John Keeker, S. C.; David F. Kenady and wife, Va.; Mrs. E. M. Cottrell, Detroit; Dr. W. E. Baylor and wife, and H. Y. Brown, Va.; Mrs. Dora B. Watson, Ill.; E. L. Reid and wife, Tex.; Mrs. L. L. Swogger, Pa.; D. M. Johnston, Mo.; Bertha V. King, Mabelle A. Williams, Lillian M. Lewcomer and Lucy H. Holliday, Ky.;

James Knight, City; Mary R. Pugh, Ill.; Mrs. F. R. Warner, Mich.; Mrs. H. E. Randall, Detroit; Mr. and Mrs. W. F. Stanley, O.; I. J. Huff, Pa.; Miss Margrethe Hanson and Nina McCrickett, Mich.; Mrs. Smith Blair, W. Va.; Miss J. Powell, Va.; H. S. Snyder and W. C. Snyder, Pa.; J. M. Weathers and E. B. Weathers, Ky.; Mrs. Elias O'Rear and Miss O'Rear, Mo.; Mrs. M. Baxter, S. Dak.; Rev. B. Frank Davis, Ia.; I. C. Lauder and Thos. F. Cloy, M. D., Miss.; E. C. Stevenson, E. C. Stevenson, Jr., and A. F. Dean, Ia.; C. M. Doeseher and wife, and Anna Freegard, Mich.; Mrs. C. H. Comstock and Mrs. A. S. Brooks, Indianapolis; Mrs. G. G. Fanner and daughter, Indianapolis; Miss B. Maag, Detroit; A. C. Johnson, Chicago; G. G. Grandboes, Conn.; G. K. Cobell and E. C. Hanna, W. Va.; Mrs. R. F. Dennis, Tex.; Emma L. Kenyon, Ill.; Miss Schermerhorn and Mr. Geo. Schermerhorn, Pa.; Harry Rex, O.; Dr. M. J. Means and wife, O.; J. B. Baker, Md.; O. H. Perry, O.; J. M. Wilbur, Mich.; B. S. Allison, W. Va.; S. Rosenbaum, Cincinnati; C. L. Nurdyke and wife, Indianapolis; R. W. Beall, Pa.; John Hohmann, Ark.; Frank A. Manning, Kalamazoo; D. Hopson, Pa.; Mrs. E. L. Perrin, Mich.; Mrs. T. Taylor, Kalamazoo; J. C. Snyder, Mich.; Adelia N. Bishop, Ill.; E. H. Kent, Tex.; S. H. Standish, Wis.

News and Personals

Mrs. R. W. Swope, of Kansas City, has returned to the Sanitarium in company with a friend, Mrs. Long, of Columbus, Ga.

We have with us at the present time Mr. L. A. Kaye, of New York, who is famous as the inventor of the sand-lime brick process.

Mr. Jno. C. Ritchey, a prominent merchant of Camden, Ark., is spending his vacation with us, having been here five times previously.

H. D. Klein, from Uniontown, O., is one of our returned patrons. He is a popular railroad conductor on the Pennsylvania Lines.


Mrs. Lenna M. Ragsdale, of Tennessee, formerly one of the matrons of the Sanitarium, is visiting friends at the Sanitarium this week.

With others who have returned to obtain a new supply of health and vigor for the summer, we notice Mr. and Mrs. W. F. Stanley, of Conneaut, Ohio.

Mr. E. N. Hood and wife, of Collins, Miss., are with us, being recommended to come by their physician, Dr. P. E. Archinard, of New Orleans.

Although Mr. R. W. Beall has spent four or five summers with us, he takes another rest from his hotel business in Uniontown, Pa., to spend a few weeks with us again.

Mr. G. C. Kaltenbach, of Erie, Pa., a very prominent man in the art of photography, comes here through his friendship with Mr. Doty, who is also a photographer.



Keep the Health You Have Regain Your Lost Health

Two very significant words—*keep* and *regain*. At the bottom of every success or failure lies the question of **HEALTH**.

No one ever has perfect *health*; but every one knows, vaguely, that he feels better, and can work better, on some days than he can on others. Such a degree of *Health brings Efficiency*, and in these days of competitive struggle *Efficiency* spells *Success*. When you know how to live, then, and then only, will your body be *efficient*. Our booklet

"HEALTHFUL LIVING"


Sent to you free for the asking will explain our methods of keeping the body **efficient**. Cut out the blank on the left, fill in the proper places, and mail to us.

Ask us any questions you wish about your condition, and they will be answered free of cost.

Name.....

Address.....

KELLOGG FOOD COMPANY, Dept. H-7,
BATTLE CREEK, MICH.



Please send me a copy of your Diet System book, "Healthful Living."

From Jackson, Miss., we have another patient by the name of H. J. West, who was recommended by Mr. Huff, one of the many former patients from that city.

F. A. Manning, Professor of Johns Hopkins University, Baltimore, is spending a short time with us between his summer duties at the Kalamazoo Normal School.

D. Hopson, of Corning, Ark., returned the 11th. He is a prominent lawyer in that locality. Another lawyer, T. B. Catron, from Santa Fe, New Mexico, has returned to us.

We are glad to have with us for a period of rest and recuperation, Dr. Caroline Lawrence, who has served very faithfully as a medical missionary in the trying climate of Egypt.

Mr. and Mrs. J. A. Holly and son, of Charleston, W. Va., who have for some time spent their summers at the Sanitarium, are again with us and comfortably settled for the season.

Mrs. B. F. Allison and daughter, of Wheeling, W. Va., have come to the Sanitarium to visit Mr. Allison, a leading lawyer and citizen of that place, who is here for treatment.

Mr. J. L. Lincoln, of Kalamazoo, a prominent business man of our neighboring city, is again with us. He is a warm friend of the Sanitarium, having often experienced the benefits of treatment here.

Mr. Albert Wahl, a prominent farmer of Payne, Ohio, came here on the 13th instant with his uncle, Fred Wahl, who has been here a number of times previously, and is a staunch friend of the institution.

Dr. Nancy Dryden-Richards, of New Philadelphia, Ohio, has brought her husband to the Sanitarium for treatment for arteriosclerosis. She is an old friend of the Sanitarium, having brought a patient here as early as 1892.

Mr. A. C. Allen, the courteous and efficient clerk at the cashier's window, has been transferred to the Sanitarium Annex, where he will act as chief clerk and cashier. His former place has been supplied by Mr. Irving Steinel.

Mr. J. C. Armstrong, of Brownsville, Pa.; Mr. Geo. W. Everett, of Philadelphia, Pa.; and Mr. D. F. Kennedy, attorney from Virginia, and Mr. W. S. Wallace, an attorney of Missouri, are patients all of whom have been with us before.

Mr. George Huber arrives from St. Marys, Pa. At one time in his life he had the unfortunate experience of remaining for eight and one-half days beneath an immense pile of rock. His rescuers were surprised on finding him still alive when rescued.

This week the Sanitarium Annex is being occupied by the overflow guests. Some of the general rooms are not quite prepared, but the work of preparation is comparatively

near completion, and many of the private rooms are now ready for guests.

Mr. W. M. Gibson, of Oklahoma, a prominent business man, engaged in the ice and refrigerating business of Oklahoma City, arrived a few days ago, accompanied by his physician. He was quite ill, but we are pleased to say is already well started on the road to recovery.

Hon. Murray H. Morrow, ex-mayor of Benton Harbor, Mich., is a patient at the Sanitarium. Mr. Morrow was quite ill when he arrived, but, although he has been here but a short time, is already showing marked signs of improvement, much to the gratification of his physician and friends.

Miss Merry has come to spend a time with her father, the Hon. W. L. Merry, U. S. Minister to Costa Rica. Mr. Merry arrived in so feeble a condition that his life was despaired of, but he has already made remarkable improvement and has good prospects of continued health and usefulness before him.

The topic of the Christian Endeavor Society meeting next Friday evening will be, "Grace for Common Duties," and a very interesting occasion may be looked for. This meeting is now held at 8 o'clock each Friday evening. The services are well attended, and those who go always find matters of interest in the program.

Mr. G. P. McCormick, manager of the Pacific Express Co. at Tallahassee, Fla., and Mr. G. P. Wilson, of the same company and

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 same city, have arrived at the Sanitarium as returned patients; and, knowing the virtues of the treatments here administered, brought with them their friend Judge George Walker, a leading lawyer of Florida.

The Sanitarium received a visit during the week from Mr. O. R. Staines, of Nashville, Tenn., who is in charge of a mission industrial school located on a large farm located not far from that city. Mr. Staines was formerly a Sanitarium nurse. His friends were pleased to receive him and to render assistance to him in carrying on his work.

Nearly two years ago one of our student nurses was thrown from a street car by the carelessness of the conductor, and so injured that her health has been since impaired. We are pleased to know that the street car company has made a settlement with Miss Baldwin by which she is partially at least remunerated for what she has suffered. Miss Baldwin is likely in the future to recover her full health.

By reference to our list of arrivals, it will be seen that over 240 guests arrived during the past week, an average of about thirty-five arrivals per day. And this is not our most busy season, but it clearly indicates that as the knowledge of the work done at the Battle Creek Sanitarium extends, people are more and more desirous to obtain the benefits offered here.

Rev. R. L. Smith, of Ligonier, Pa., has been a patient at the Sanitarium for the past month and has now returned to his pastorate very much restored in health and natural vigor. Mr. Smith came to us quite reduced in health, and naturally feels very grateful for what he has received. Later he expects to return for his summer vacation, and the many friends that he has won will be glad to welcome him.

Mr. M. J. Means and wife, of Columbus, Ohio, are again guests of the Sanitarium, having spent some weeks with us a few years ago. Doctor Means is Dean of the Medical School at Columbus, Ohio, a department of the State University, and is reputed to be one of the leading surgeons of Ohio, also a member of the State Board of Medical Examiners. The doctor is here especially on the account of Mrs. Means.

Dr. V. A. Davis, of Kansas City, is spending a few months in the institution, taking observations and studying the methods and principles, preparatory to taking charge of the new hospital and sanitarium which is being built in Kansas City, as a gift to the public by Mr. H. E. Long, a former patient at the Sanitarium, for which purpose he has devoted at least \$400,000. Mr. Long was an admirer of the Sanitarium and its work, and desirous of having similar methods introduced into this great hospital which is designed to act a useful part in the relief of suffering.

Dr. Mariam S. Headland greatly interested a large audience on the parlor lawn Sabbath afternoon in giving the beginnings of the medical missionary work in China, together

with personal reminiscences of court customs and experiences with the Dowager Empress. For over twenty years Peking was the field of Doctor Headland's labors, and in association with Mrs. Conger, wife of the U. S. Minister to China, she was largely instrumental in introducing the great steps of reform which have so affected the womanhood of China during the last few years. Mrs. Headland's address was replete with information and experiences of thrilling interest.

Mr. John Jackson, F. R. S., of England, who is engaged in the promotion of missions for lepers throughout the world, was a guest of the Sanitarium for a short time this week, and on Tuesday evening delivered a famous lecture on the work in which he is engaged. His work was beautifully illustrated by stereopticon and several films of moving pictures. It is a cause of deep gratitude that so much is now being done for the unfortunate thousands in the Eastern countries who are dying from this dreadful disease, one of the oldest maladies known in history and always regarded as invariably fatal. But much is being done now for the comfort, and in some incipient cases the restoration, of those who are thus afflicted. The lecture was replete with interest and the subject appealed to the sympathy of a very large congregation which filled the gymnasium.

We are able to announce that the Sanitarium Kindergarten and Summer School will open on the 26th of June. There will be the usual attractions for children, including classes in cookery, swimming, gardening, gymnastics, and the usual kindergarten work. A special playground has been arranged for the children, and every pains will be taken to secure a successful session of this school, which is held especially for the benefit of the children of guests of the Sanitarium, thus relieving parents of a great deal of care and anxiety for the little ones. The school will, as for two or three previous seasons, be under the direction of Miss Daisy M. White, whose experience in the past gives assurance of the good character of the school. Due and definite notice of the opening of the school will be sent to all patrons of the Sanitarium, and arrangements can be made with the teacher.

From the long list of recent arrivals, the following names have been brought especially under our notice, and we mention them as samples of the class of people that appreciate the principles of right living and are looking this way: Miss Louise Goldy, a trained nurse of the Deaconess' Hospital, Cincinnati, Ohio; E. H. Kent, a prominent business man of Houston, Tex.; Mr. E. M. Moize, from South Carolina, a prominent business man, who comes to us on the recommendation of a friend and former patient; Mr. S. K. Webb, superintendent of the United States coal station at San Diego; Alfred J. Hedges, a business man of Detroit; F. E. Miller, Esq., vice-president of the Ohio Paper Mill Company; D. H. Tennant, of Minneapolis, president of the D. H. Tennant Flouring Mill Company; Mr. Thomas Strain, of California, proprietor of a large fruit farm; and Mr. J. H. Shanks,

a leading business man of Steubenville, Ohio, who was directed this way by his physician, Doctor Floyd, a friend of ours.

The pulpit of the Sanitarium chapel was occupied last Sabbath morning by Dr. E. J. Waggoner, who delivered a very excellent discourse from the text, "What think ye of Christ? whose son is he?" The speaker stated that all that was known of Jesus is gathered from the Bible. There is but the merest trace of his name in secular history, and those who profess to believe in Christ should accept what the Bible says of him, or else, in order to be consistent, reject the Scriptures altogether. Among the many proofs of his divinity, the speaker chose to dwell particularly upon the evidence of the words of Christ, especially those great claims which he makes for himself, which constitute him a divine being of infinite grace and power, or the most colossal imposter the world has ever seen. For instance, "Before Abraham was, I am." "Come unto me, all ye that labor and are heavy laden, and I will give you rest." "I am the Light of the world," etc. These are claims such as were never put forth by any other man, but the man Christ Jesus, and their fulfillment characterizes him as being all that he claims to be.

On Thursday evening, June 8, occurred the customary reception tendered by the Nurses' Alumni Association to the newly graduated class. Invitations were extended to quite a large number of friends, including the faculty of the Training School. The preparations and program were unique and the occasion afforded very interesting and profitable entertainment. The officers of the Alumni Association stood in receiving line, and after an hour spent in social intercourse a program consisting of orchestral music, a brief address by Dr. A. J. Read, two readings by Mrs. J. H. Kennedy, a song by Miss Hannon, was given. Various booths were arranged about the room in which the work of the nurses was graphically illustrated. In one corner of the room was an old-fashioned well, with a sweep, and while Miss Irene Jackson sang "The Old Oaken Bucket" from behind a screen, others were employed in drawing from the depths of the well copious drafts of iced grape juice which were drunk, not from the "moss-covered bucket," but from sterilized sherbet glasses. Many other features contributed to make the occasion one of extraordinary interest long to be remembered.

ANNUAL MEETING OF THE MICHIGAN SANITARIUM AND BENEVO- LENT ASSOCIATION

THE regular annual meeting of the Michigan Sanitarium and Benevolent Association for the year 1911 will be held in the Chapel of the Battle Creek Sanitarium, on North Washington Ave., Battle Creek, Michigan, Thursday, June 29, 1911, 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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NEW IDEALS OF CITIZENSHIP TAKEN FROM THE QUESTION BOX

An Address Before the Graduating Class of the Sanitarium School of Domestic Science, by Mrs. Olaf W. Guldlin, Chairman of Home Economics, General Federation of Women's Clubs

(Continued from last week)

In the early days of astronomy, before its true principles had been discovered, it is related that one of the earlier astronomers kept

Sundry Queries Propounded by Patients, with Ready Responses by the Sanitarium Superintendent

Q. Are pine nuts raw or cooked?
A. Sometimes one way and sometimes the other. I wish they were uniform. Pine nuts

LIVING LONG AND LIVING WELL

Doctor Kellogg Claims that an Ancient Relative Lived for a Millennium—
Keep the Blood Pure and the Heart Right

Acids Fatal to Bacteria

GERMS begin to grow in the body just as soon as we are born. Within six hours in



THE SOUTH ENTRANCE OF THE SANITARIUM ANNEX

swearing and cursing God, and wishing that he might have been present in the creative days to have offered God a few suggestions.
(Continued on page three)

as they are obtained are very dirty. They come from Spain, and they are almost sooty, they have so much dirt mixed with them;
(Continued on page four)

summer, and twenty hours in winter, the interior of the alimentary canal becomes luxuriantly covered with bacteria. These bacteria are called the flora, the vegetation, of

the intestine and the alimentary canal. Those that first occupy the body at birth are friendly germs that produce acids which protect the body against the encroachment of unfriendly germs which produce poisons. These poison-forming germs can not grow where the acid-forming germs are present, because they grow in alkaline media, and an acid condition is unfavorable to their growth.

That is the reason the frontier house-keeper puts her fresh beef into sour milk to keep it. The fresh meat is full of putrefactive bacteria that can not grow in the presence of acids; so the fresh meat is put into some sour milk, where it will keep for some time. By changing the sour milk once every two or three days, the meat can be kept fresh a long time. We have in the cooking school here a beefsteak which was put into a

changes in the colon and so make trouble. You see at once the importance of discarding meat with its putrefactive materials and introducing into the intestine only those foods that encourage the growth of the friendly germs. Cereals of all kinds, everything that contains starch in abundance, the sugars of fruits and fruit juices, and all sorts of vegetable products with these farinaceous and saccharin materials encourage the growth of friendly germs, and consequently are the natural diet of man; for man's alimentary canal is not adapted to dealing with a great number of putrefactive poisons.

Some Notable Examples

Thomas A. Edison, the master inventor of the world, has thought it worth while to give some attention to the question of diet. He

twenty or thirty years of his life he was a strict abstainer from intemperance of every sort. He never tasted flesh under any circumstances, and denounced its use as entirely unnatural and unwholesome. He prolonged his life many years by his abstinence, taking care to provide his body with the sort of nourishment that was best for it.

Leonardo da Vinci, one of the greatest artists that has ever lived, was a strict abstainer from flesh, and was a man of great temperance and sobriety. He gave careful attention to his physical health, and this doubtless accounted to a large degree for his wonderful success in life in every particular, and for his marvelous excellence as an artist.

Now see, on the other hand, what our indulgence in flesh-eating demands. In every large city there are abattoirs where

The Most Horrible Scenes

are enacted. Think of it! The visceration of animals, the cutting of their throats, the groans of these poor brutes; men smeared with blood,—it is too horrible to be described or thought about. Yet we compel the existence of these dreadful things in order that we may feast upon flesh that is absolutely unnecessary, that inflames our blood and deteriorates and destroys our bodies.

In the eating of flesh we expose ourselves to various dangers. Mr. Grubb, of Colorado, the great potato raiser, a member of the State Board of Agriculture, told me that in one section of Colorado forty per cent of all the hogs are

Infected with Tuberculosis.

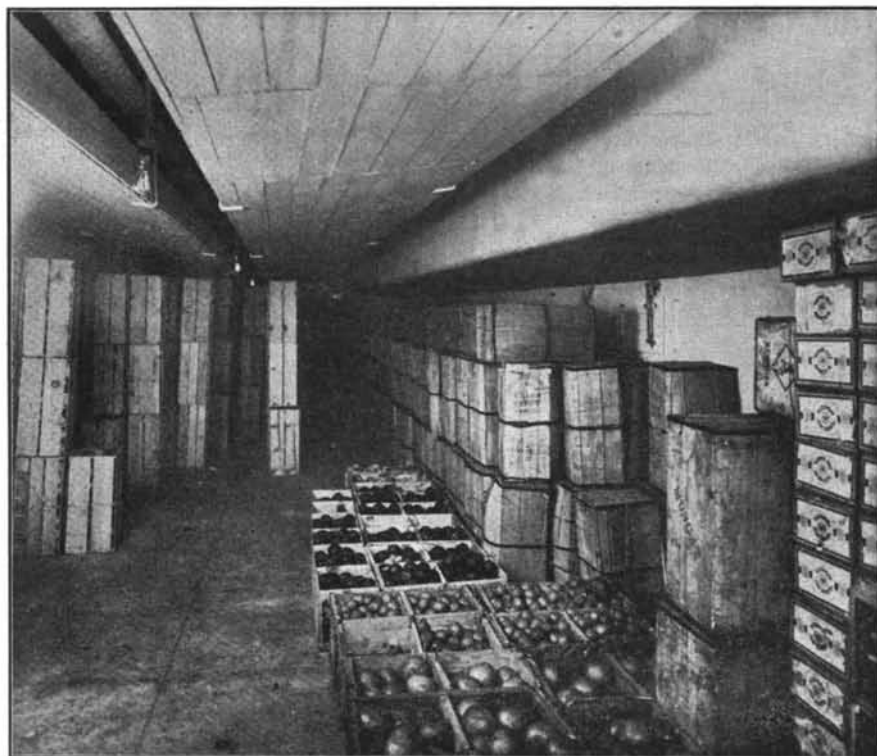
They get it from eating the skimmed milk from the cows. The cream is used in the dairies for the making of butter, and the skimmed milk is fed to the pigs; and there are so many tuberculous cows there that forty per cent of the pigs have tuberculosis. He also told me that in Wisconsin you can trace the dairy routes through the country by the tuberculous pigs. In Scotland he found more than fifty per cent of the cows that are slaughtered have tuberculosis. In Germany over fifty per cent of the cows that are killed and sold in the market have tuberculosis. In some parts of this country the same thing is true. Taking the United States as a whole, probably about one-fourth of all the cows have tuberculosis when they are killed. This disease is becoming very widespread, and largely, without doubt, through the use of milk and of the flesh of tuberculous animals.

Tuberculosis kills just as large a proportion of people to-day as it did five years ago. Considerable progress was made at first, but very little is being made at the present time, and there is not likely to be any great additional progress made unless we get at

The Root of the Matter

and cut off the great causes of this disease, which are the use of tuberculous milk and the tuberculous flesh of animals, and the lowered vital resistance from our indoor life.

There are measles in flesh that produce



ONE OF THE COLD STORAGE CHAMBERS

glass jar with some yogurt buttermilk three years ago, and it is perfectly sweet now.

The very same thing is true of our own interiors. If we keep them in a slightly acid condition, the putrefactive bacteria which produce auto-intoxication, which cause headaches, biliousness, skin diseases, arteriosclerosis, and a great variety of chronic ailments, will not grow. A meat diet

Favors the Growth of Unfriendly Germs,

and that is one of the reasons a vegetable diet is so much more favorable and healthful than a meat diet. Meat not only favors the growth of germs, by furnishing material upon which they live and thrive, but it actually introduces the germs themselves, for they are always found in meat in great numbers. Some of the meat, of course, is digested and assimilated, but those parts that remain undigested undergo putrefactive

discards tobacco and alcohol, and will not have anybody about him that smokes or drinks. He eats very sparingly, twice a day, taking the greatest care in the selection of his food. He thinks it worth while to give his body just as good care as he would give his phonograph, or any of the various delicate machines which he has invented.

Cornaro, a man who at forty found himself completely broken down in health, a perfect wreck from high living and dissipation, changed completely his habits of life and lived to be over one hundred years old, in perfect health, and on the most abstemious fare, taking only very simple food. He was an architect and an artist, and a man of letters. He became a very wealthy man, and a man of very great influence, a promoter of art and of the public welfare.

Tolstoi was in his early life given more or less to selfish indulgences, but during the last

tapeworm. Each one of these little specks has a young tapeworm inside, and when that cell is broken by the gastric juice, the little tapeworm attaches itself to the lining membrane of the intestine, and grows and develops. A tapeworm is a whole community. The first member of the community hangs on to the man, and all the rest of the members of the community hang on to the one ahead of them. It is a community in a procession. Each one of these little sections is a separate individual, and produces thousands of eggs. These eggs find their way into the sewers and are carried into the rivers, and cattle drink the water and get the eggs, and in that way become infected. We are sowing seeds of tapeworm in every stream all about the country, and we are reaping the harvest in ourselves.

The Natural Diet

is indicated to us by Mother Nature just as clearly as the diet of the horse is indicated to him. The horse eats the diet that belongs to it. You never see a horse trying to eat food that belongs to some other class of animal. A horse has horse sense, so he seeks his proper bill of fare. The average man has lost his horse sense, and so he eats not only the food that belongs to him, but he eats everything every other animal eats. He prides himself that he is omnivorous, which is not at all true. His teeth indicate that he is frugivorous. The gorilla has exactly the same sort of teeth, and the number and arrangement of his teeth in the jaw is just like ours; and his diet is absolutely frugivorous.

Doctor Gail states that when he was in the center of Africa among the pygmies in the great forest he asked the pygmy chief how he knew what to eat when he went into a new forest. The pygmy replied, "If we find a nut and we do not know whether it is good to eat or not, we place it where a monkey can see it, and we watch the monkey to see what he does. If he eats the nut, then we know it is all right. We follow the monkey in diet."

The teeth of the horse and the dog are not at all like ours. The dog eats flesh, the horse eats corn and grass, the monkey eats fruits and nuts and soft grains. That is

The Natural Human Dietary,

—fruits, nuts, and soft grains; but by the aid of cookery we may also eat dried grains and vegetables. If we had followed our natural dietary we should be delivered from nearly all our physical ills. Very few of you would be here if you had followed the monkey in diet. You have been trying to eat what belongs to the dog, and the turkey buzzard, the scavengers and the carnivorous animals,—foods that are swarming with bacteria and begin to putrefy soon after being taken into the body; and the poisons generated lead to hardening of the arteries and make us old before our time, and wear out our tissues so the blood-cells become diseased and attack the body instead of defending it as they ought to do.

But it is not all in diet. There is a good deal in diet, but not all. There is much also in living outdoors, getting the benefit of exercise, of fresh air and sunshine, and sport in the water.

NEW IDEALS OF CITIZENSHIP

(Continued from page one)

But later, when the true principles of astronomy began to be discovered, the astronomer saw the universe was in perfect harmony; he kept praising God and exclaiming, "O! God, how wonderful is thy majesty! How infinite is thy creation!"

And so now when we look at the many unjust conditions, the sorrow and suffering, the mess that most of us are making out of life,

We Are Liable to Question Providence;

but when we realize that most of this grows out of our distorted sense of what constitutes life, and is not the reality of God's plan for us, when we base life on a truer interpretation of what constitutes life and live in the large world of God's creation, we, too, will thrill with the exuberance and beauty of true living.

I hear you say, Exactly, but what part am I to take in this universal adjustment that is to reveal man to himself? Civilization has built up an enormous superstructure. It forgot to provide for the foundations, the living conditions of man, consequently he is defective physically, and as a result, mentally and spiritually. You have to put in this underpinning of society.

The World Knows

of infantile mortality, the tremendous loss of life due to avoidable disease, of one divorce in every twelve marriages. It sees chaos, sorrow, misery; but it does not yet see that if it studied the needs of the individual, built houses for his needs, with proper reference to light, drainage, sanitation, ventilation, outdoor living and sleeping rooms, with every modern convenience; that if the world cooked, ate, exercised, dressed and worked, studied and played, properly, most of this disease and discord could be avoided. You have to teach the race their real needs, and then you have to teach them how to meet their needs when they know them.

Right now the homes, the public school system, the factories, the restaurants, even the country church, is calling for your work. It recognizes that the whole scheme of education, religion, and home training has been away from the home, away from life itself; and if these institutions are to serve their real purpose, it will be because they realize and meet the needs of the best civilization.

Not only that, we are needing institutional managers in colleges, hospitals, and all institutional life. A great waste is occurring because of the lack. Greater than all this, we are beginning to see that the life, happiness and success of the average individual is largely dependent on his efficiency, his understanding of the fundamental needs of his being. We like to believe that his health and his happiness are largely dependent on this basic knowledge and also on intelligent service to society. We are recognizing that the educational institutions do not meet these needs. This is largely provided for in our technical schools for men, but has not yet been met fully for women. The women do not, as yet, see the need. Of the \$10,000,000,000 spent for living in the United States, it is estimated that one-tenth might be saved for higher things if people understood household

management. If women and men understood these practical subjects, I am inclined to believe it would obviate much of the discord that characterizes the average marriage. Marrying while absolutely incompetent where they need the most perfect training, where they will encounter the greatest difficulties, they run into all sorts of snags. Life is thus one long conflict, when it ought to be the culmination of complete living.

This domestic knowledge, which seems to be the solution of much of our distress, is not now available to the world. Consequently we have to combine with the experts who know, and farmers' institutes, churches, schools and women's clubs to help them see that they can be the direct agents to bring about this better life. However, some are now doing splendid things. They are studying the subject, putting this department in the schools, putting the books in the libraries, co-operating with the State universities and combining with the ablest teachers in holding household conferences in different States.

We Must Keep on Working

until we have domestic science in every public school, until women realize it is bad for not to understand their work in every particular, until even the farmer realizes he must provide modern conveniences to protect and help his wife, that her life is more essential than the life of his hogs and cattle.

Since the wage-earning world has taken 6,000,000 women from the home, and the price of woman labor is far beyond the average household, the situation calls for not only all modern methods and conveniences, but it means system, order, and above all, co-operation, where Johnny, Mary, even father, should take part. Formerly father took care of the cow, chickens, garden, sidewalks, furnace. He considered it a rest from the office. Now his thoughtfulness is needed more than ever. Should not father help mother in studying all these co-operative questions? Should they not face these things together? If we had this delightful, intelligent, constructive work going on in the home, it would not be drudgery.

I do not want to add mother's job to father's, but mother must not be an over-worked drudge. Her work is mental and spiritual, as well as physical. She must pervade the home with intelligent joy, must have time to be a companion and furnish an intelligent life to father and children.

Sons and daughters should not be permitted to grow up in the home with no feeling of responsibility. Both should be well taught and trained in the arts of homemaking; and thus not only become helpful to father and mother, but also fitted to bear the responsibilities that will surely come when they undertake homes for themselves.

I fear I have been talking as if home economics were all of life, when in reality it is only the means to the end. It is the means whereby we expect to let science lift much of the drudgery of life, and replace it with order, sanitation, knowledge, beauty. It means that you and I shall live in the big world of thought and activity, and help solve these world problems. The knowing how is the only means to the end. Efficiency is the standard of life these days.

The Battle Creek Idea

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VOL. IV JUNE 23, 1911 No. 29

SUMMER VACATION

THE one redeeming feature of the average American life of rush and push is the summer vacation habit that is fixing itself quite strongly upon people of nearly all classes. But for this season of relaxation and recuperation we should soon be a race of neurasthenics, or perhaps worse. The human system withstands a lot of misuse and over-use, but it has its limitations, even in the best of us, when endurance ceases to endure. But with a couple of months thrown in at the very time of the year when rest is most needed, many people manage very well, and still push on year after year.

And this may be done very well if one understands the art of preserving his health and vitality, and getting the most out of himself with the least expenditure of force.

The Battle Creek Sanitarium now offers the ideal place for such people. For some years the crowded condition of our rooms and buildings has prevented many who would have been glad to come from doing so at the only season in the year when they felt at liberty to come. But now ample provision has been made in the addition of the large Annex, another beautiful view of which we present this week.

No other spot affords more ideal summer conditions than this. The spacious lawns are covered with beautiful shade, the surroundings are quiet and peaceful; a large number of attractive lakes and resorts are within easy reach by car or trolley. Indeed, one of the most lovely little lakes lies at the outskirts of our city. Here, while resting, the tired man and woman may listen to lectures and attend classes and demonstrations, and in his daily treatments and the explanations of doctors and nurses, may learn those things which go to make life a success and a joy.

Battle Creek is a model city of thirty thousand people, up-to-date, and well provided with all that goes to make a pleasant community,—good people, good churches, good entertainments, good stores and shops, a good car system, and an abundance of over-spreading shade trees along the streets.

QUESTIONS AND ANSWERS

THE following questions have been sent in by a reader, and we present them with the replies:

Question. What treatment do you recommend for eczema?

Answer. In treatment of eczema, the first care is to avoid further use of the irritant, whatever it may be. In chronic cases especially, alternate applications of hot and cold are most beneficial to stimulate the circulation through the parts and so tissue activity. The general health should be improved, especially the digestive and eliminative systems. A simple, low-protein diet, with plenty of fruit and green vegetables, and copious water drinking at periods removed from the meals, is of importance. If necessary, a soothing ointment or wash may be used.



SCENE ON THE SANITARIUM LAWN

Q. What other foods than meat and eggs cause autointoxication?

A. Too much food may be a cause of autointoxication. Though meat and eggs are the most prolific causes, any protein food taken in excess may cause it.

Q. Are all foods preserved in tin cans injurious?

A. No.

Q. Is horseradish wholesome?

A. Horseradish is a condiment, and so irritating; even more so to the delicate lining of the stomach than to the mouth. Most decidedly, it is not wholesome.

Q. Are raw onions injurious when they bite the tongue?

A. A fair test of the onion may be made by fletcherization. If they can be thoroughly masticated with enjoyment, it is safe to swallow them.

Q. Can you recommend olive oil for constipation?

A. Olive oil (as a fat) is an excellent laxative.

QUESTION BOX

(Continued from page one)

so they require very thorough washing; and after they are washed and cleansed, they are put into an oven to be dried, and sometimes they are dried a little more than they ought to be. They have to be heated to a point sufficient to sterilize them, otherwise they are not entirely wholesome.

Q. What proportion of each of the three kinds of food elements would you advise a man in good health to take to increase his weight when fifteen pounds under weight?

A. Let him eat ten per cent of protein and thirty per cent of fats, and about eighty per cent of carbohydrates. But you say that is 120 per cent, and so it is; but he wants to eat a little more than he ought to eat. He does not need any more protein, and it probably

would be difficult for him to digest any more fat; but he can take more carbohydrates.

Q. What is the cause of eczema?

A. The principal cause is autointoxication.

Q. What is the cure?

A. The cure is to take more pains to masticate the food, to eat drier food, and to take perhaps a tablespoonful or two of olive oil at the beginning of a meal. That will cause the stomach to make less gastric juice.

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

A. The cause is poison in the blood. It may be alcohol, it may be tobacco, it may be mustard, pepper, peppercorn, ginger—any of the condiments,—they are all stimulating, irritating things, that injure the blood-vessels first of all; and it probably is the poisons found in decomposing flesh. Doctor Ross, of Liverpool, has shown by actual experiment that these poisons are the cause of cancer; they are the cause of hardening of the arteries. There is no intelligent physician anywhere who would not say to his patient

coloration of the skin, and makes the skin dingy in appearance.

A. It is due to the stimulation of the gustatory nerves. I remember very well a patient who had this most embarrassing difficulty, that within three or four minutes after he began to eat, the secretions would begin to run from his nose and tears from his eyes, so he had continually to hold his handkerchief to his face. It was because the stimulation

A. Because it does not undergo putrefaction so readily. Another reason is because it does not contain any germs to set up putre-

Address either of these Journals, - - Battle Creek, Michigan

Address. MEDICAL MISSIONARY, Battle Creek, Mich., U. S. A.

ADDRESSES

A CHANCE FOR STUDENT NURSES

THE BATTLE CREEK SANITARIUM AND HOSPITAL TRAINING SCHOOL FOR NURSES

offers exceptional advantages to those who contemplate taking up the Nurse's profession. A Three-Years' Course is offered to Women, and a Two-Years' Course to Men. Over two hundred Nurses are employed in the institution.

The demand for Nurses who are trained in the Sanitarium principles and methods is constantly increasing, both in the institution and outside. A good salary awaits those who finish the course.

In addition to the usual subjects taught in hospital training schools, special attention is given to all branches of physiologic therapeutics, including hydrotherapy, radiotherapy, electrotherapy, 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.

For full information address

SANITARIUM - - Battle Creek, Mich.

of the gustatory nerve in the mouth excited the mucous membrane of the nose as well. In your case, it extends to the nerves of the scalp, so that the sweat glands of the scalp are excited.

Q. What foods do you recommend for low motility?

A. The most important thing for low motility is to take care that the food enters the stomach in a thoroughly broken up state. The food should not enter the stomach in the form of liquid, because the stomach can not absorb very much, and the liquid is likely to overload it; but it should enter the stomach in the form of a soft, smooth pulp, and it should be chewed in the mouth until it is thus reduced. A person with that sort of stomach should not eat very much of coarse things like cabbage and lettuce, unless they are thoroughly chewed; everything must be pulp when swallowed into the stomach.

Q. What is the easiest way to get rid of a cold in the head and chest?

A. A hot bath taken at night, a chest pack applied upon going to bed, a cold bath in the morning, and drinking a glassful of water every hour—the latter is the most important of all. A cold is simply a retention of poisons in the body, an interruption of the eliminative processes by which poisons are removed. The accumulation of these poisons in the body produces what is called a cold.

Q. What causes darts of pain at the top of one's head?

A. This is a neuralgic pain. It is sometimes rheumatic in character.

Q. What diet is best in the treatment of diabetes?

A. A diet consisting of fresh vegetables, avoiding potatoes, both Irish and sweet potatoes, and all other sorts of root vegetables, and all kinds of acid fruits. A moderate amount of cereals and a considerable amount of fats and gluten preparations,—that is the proper dietary. But no beef, no meat. If eggs are eaten at all, take only the yolks.

Q. What is the cause of pains in the lower extremities in a person suffering from diabetes?

A. Sciatica and neuritis are very common in this disease.

Q. What is cerebral thrombosis?

A. A clot formed by the rupture of a blood-vessel in the brain, cutting off some of the nerves.

ARRIVALS

The list of arrivals at the Battle Creek Sanitarium for the week ending June 18 is as follows: Geo. Huber, Pa.; G. D. Klein and wife, O.; J. S. Lincoln and Lizzy Healy, Kalamazoo; Monroe A. Morrow, Mich.; Emory Smith, Okla.; Miss Lulu Goldstein and Mrs. I. Goldstein, Chicago; J. I. Brody, Des Moines; May Tillotson, Mich.; Nick Emig, Calif.; Wm. Danner, Boston; John Jackson, England; Carl Dietz, N. Dak.; Mrs. L. M. Ragsdale, Tenn.; Mrs. Sarah K.

Keep the Health You Have Regain Your Lost Health

Two very significant words—*keep* and *regain*. At the bottom of every success or failure lies the question of **HEALTH**.

No one ever has perfect *health*; but every one knows, vaguely, that he feels better, and can work better, on some days than he can on others. Such a degree of *Health* brings *Efficiency*, and in these days of competitive struggle *Efficiency* spells *Success*. When you know how to live, then,

Please send me and then only, will your body be *efficient*. Our booklet

a copy of
your Diet Sys-
tem book, "Health-
ful Living."

"HEALTHFUL LIVING"

Sent to you free for the asking will explain our methods of keeping the body **efficient**. Cut

out the blank on the left, fill in the proper places, and mail to us.

Name..... Ask us any questions you wish about your condition, and they will be answered free of

Address.....
KELLOGG FOOD COMPANY, Dept. H-7,
BATTLE CREEK, MICH. cost.



Gray, N. Y.; Chas. Wolohan and son, Mich.; E. N. Maize, S. C.; Dr. N. S. Bradley and wife, Mich.; G. W. Bohning and Beth Bohning, Tex.; S. A. Bemis, Mo.; Fred Wahl and Albert E. Wahl, O.; H. J. West, Miss.; G. F. Warren and wife, Ind.; G. C. Kaltenboeh, Pa.; Eberhart LaVerne, Mich.; Thos. Strain, Calif.; Miss Gaylord, Denver; Harry W. Denny, Indianapolis; C. G. McCormick, W. D. Wilson and Geo. W. Walker, Fla.; Mrs. A. Shanks and J. H. Shanks, O.; Jno. Jones, Okla.; Jos. H. McGiffert, Ala.; Miss Cross and Dr. Reuben Peterson, Mich.; Miss Louise Goldie, Cincinnati; Mrs. C. J. Baldwin, O.; Mrs. E. N. Lupfer and S. E. Baker, O.; Miss Merry, Costa Rica; J. S. Bailey and wife, Ga.; C. F. Kapp and lady, Mich.; Caroline P. Lawrence, N. C.; Dr. F. A. Phillips, Mich.; G. H. Turnont, Minneapolis; W. M. Gibson, Okla.; F. B. Bennet, Kalamazoo; H. J. Webb, Calif.; Charles F. Gossett, O.; Demetrix Tillotson, Ind.; B. J. Hedges, Detroit; F. E. Miller, O.; Mrs. R. W. Swope, Ga.; Mrs. H. E. Lang, O.; Anna W. Ericson, China; Mrs. T. A. Gaylor, Kalamazoo; G. W. Ruble, Okla.; T. J. Norton, Chicago; Carl Weeks, Des Moines; T. H. Malone and wife, Ill.; J. P. Knapp, Chicago; Mr. and Mrs. Edw. D. Ellis, Detroit; Mrs. B. S. Allison and Miss Marguerite Allison, W. Va.; L. Paper, Minn.; E. E. Noble, Okla.; Alice Richardson, Ill.; Dorothy E. Kellam and maid, Mo.; Mr. and Mrs. A. B. Searborough, Tex.; Mrs. Bessie McPherson, City; R. A. Warren, Neb.; W. H. Phillips, Ind.; Mrs. J. H. Staley, City; W. B. and M. H. Van Horn, W. Va.; R. S. Taylor and wife, Ind.; Ward G. Foster, New York City; J. E. Myers, O.; E. H. Given, Tenn.; Anna

Irwin, Chicago; Frank W. Reeves, Ark.; A. S. Davis, La.; Grant Faith, Ind.; Thos. P. Jones, Pa.; Robt. L. Dula and Lyman A. Barber, M. D., New York City; Mrs. D. B. Hamilton, Sr., and Miss A. Hamilton, Ga.; C. B. Harner, O.; Mrs. T. H. Bell, John B. Bell and Hugh B. Bell, Ga.; Mrs. H. F. McElroy and daughter, Mo.; Mrs. G. B. Webber, Chicago; Mrs. Arnold Broyles, Frances Broyles and Norris Broyles, Ga.; Mrs. H. Rolfe, Ia.; Mrs. I. N. Andrew, Ont.; Mrs. F. F. Fletcher, Miss Sybil Fletcher and Miss Nell Fletcher, Washington, D. C.; Alta Price, Md.; Mrs. S. W. Hunter, Miss; Mrs. J. F. Simmons and Theola Simmons, Ark.; E. P. Guerard and wife, S. C.; H. E. Randall, Detroit; W. J. Thomsen, Ky.; Miss Jessie W. Jeffrey, Ia.; Harry Chase, Grand Rapids; J. C. Shaefer, Cincinnati; A. C. Johnson, Chicago; B. A. Swindell, wife and daughter, Ill.; G. M. Armstrong, R. I.; Wm. A. Field, Chicago; Gladys Hirsch and Jennie Hirsch, Ind.; Mr. and Mrs. G. D. Coates, New York City; M. H. Black, Mo.; Mrs. E. Rothman and family, Detroit; Dr. G. M. Mayers, U. S. Navy; Miss Alice Adler, Chicago; H. W. Denny and Scott L. Denny, Indianapolis; Edw. B. Golles, Chicago; Harry Rex, O.; M. A. Potter and wife, Indianapolis; Mrs. S. J. Ferguson, Miss.; T. J. Ferguson, La.; Miss Olivia Ferguson and Miss Isabell Ferguson, Miss.; A. L. Young and wife, Minn.; S. H. Frederickson, Chicago; H. Florence Dye, O.; Ethel M. Stephan, W. Va.; Geo. Shepard and H. B. McCooch, Ind.; Geo. P. Jones, O.; L. E. Armstrong, Ia.; Miss A. Angell, Mo.; N. Friedman and son, Ia.; Howard W. Perry and A. B. Colbert and wife, Ia.; Mr. and Mrs. John Gaston,

Tenn.; Wade H. Morrow, Mich.; C. M. Howard, Ill.; Mr. Reed and wife, and Dr. Clement, S. Dak.; Mrs. E. W. Taylor, Miss.; Mrs. E. L. Perrin, Mich.; Dr. A. D. Carscalben, Manitoba; T. F. Hayden, Mo.

News and Personals

Mr. John Gaston, of Memphis, a retired hotel keeper, is again with us, having been a patient here some years ago.

In addition to several other people from Atlanta, we have Mrs. R. T. Sams, her two sons, and her sister, Mrs. J. L. Anderson.

Mr. and Mrs. D. B. Hamilton and their daughter; Mrs. F. H. Bell and Mrs. Arnold Broyles with their children, all from Atlanta, Ga., are domiciled in the Sanitarium.

Messrs. William Lowe and James Kennedy, two prosperous farmers from Wilmington, Ill., are at the Sanitarium, having been directed here by their physician.

A former patient of the Sanitarium, Mr. R. F. Sands, of Atlanta, has sent his wife and son to the institution, as the latter is in need of medical help, which he is now receiving.

A native of Odessa, Russia, in the person of Mr. Fred Rogler, a draughtsman for one of the great iron mills of Pennsylvania, is at present a member of the Sanitarium family.

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.

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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.

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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.

COST	Tuition	\$50.00 per year
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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.

Doctor Clements, of Newell, South Dakota, arrived at the Sanitarium during the past week, bringing with him one of his patients.

Mrs. F. F. Fletcher, of Washington, D. C., and her two daughters are guests of the institution. Captain Fletcher, the husband and father, is noted as an officer of the U. S. navy.

Dr. A. D. Carscallen, of Winnipeg, Manitoba, is with us in company with his wife, who comes for treatment. The doctor became acquainted with the Sanitarium through a previous visit.

Not only do our guests come to us from the Southland, but the far North is also represented by Mrs. T. M. Andrews, of Port Arthur, Ontario, situated on the northern shore of Lake Superior.

Mr. C. S. Quail, Mr. Geo. A. Charnley, Miss Ruby Ketcham, and Miss Olive Dougherty are in Detroit as delegates from the Sanitarium Society of Christian Endeavor to the annual State meeting now in session there.

Professor W. A. Finch, of Ithaca, N. Y., accompanied by his sister, arrived at the Sanitarium during the past week. Professor Finch is high authority in his profession, having occupied the law chair in Cornell for the last twenty years.

Hon. T. B. Catron, of Santa Fe, who has represented New Mexico in Congress for some years and is one of the leading lawyers of that State, is taking rest and treatment at the Sanitarium and making fine progress toward the station we all know as normal.

Mr. T. W. Thoburn, grandson of Bishop Thoburn, of Meadville, Pa., a college student and member of the *Daily Chautauquan* staff, is with us for a few days, taking some treatment between his school and work on his paper, which he resumes on the fifth of July.

Miss Mae Burrus, of Port Edward, Ontario, a recent graduate of the Toronto University, is spending the vacation period at the Sanitarium, studying the work and principles of the institution, preparatory to taking up a course in medicine in the University.

Hon. T. J. Norton, of Chicago, General Attorney for the Santa Fe Railway System, is a guest at the Sanitarium. Mr. Norton, it will be remembered, successfully conducted the famous rebate cases brought against his company. Mr. Norton has been with us previously.

Rev. J. L. Fowle, for many years a missionary in the interior of Asia Minor, has arrived at the Sanitarium for a season of rest. He has seen arduous service in the midst of many scenes of suffering and alarm. Mr. Fowle was accompanied by his son, who is taking special scientific studies in Ann Arbor preparatory to going to China as an educator.

Mr. F. Gerlinger, president of an Oregon railway, who spent a season at the Sanitarium some time since, received so much benefit from the treatment that he is now pleased to recommend the same to his friends. We have with us at present Mr. F. H. Schorn, of Chicago, a nephew of Mr. Gerlinger, who comes on his recommendation.

We give this week an interior view of one of the cold-storage rooms recently installed in the Sanitarium. These chambers have a capacity of about six carloads of fruit and produce. The temperature can be held steadily at any desired point. Altogether, the new plant is proving most satisfactory, and is a great accessory to the equipment of the institution.

A unique service took place in the parlor on a recent afternoon, when Mr. Ivers A. Tenney, of Kalamazoo, entertained a very large portion of the family of guests with an hour of crayon sketches. "Sir Launfal's Vision," by James Russell Lowell, and "Elizabeth," by Longfellow, were illustrated while being read, much to the delight of the audience.

Rev. W. S. Bishop, D. D., professor of philosophy and theology in the Southern University of Sewanee, Tenn., is stopping at the Sanitarium, taking in a new supply of vigor and strength for his arduous work as educator. Doctor Bishop is accompanied by Mrs. Bishop, and we are pleased to report that he is making good progress toward normal conditions.

Mr. O. M. Sala, of Canton, Ohio, who is at the head of the celebrated Sala Company for the manufacture of ladies' outer garments, is with us again. Mr. Sala finds it so perplexing to meet the capricious demands of fashion and his critical customers that frequent periods of rest and retirement are necessary for his nerves; and we understand he does not make hats, either.

Dr. J. H. Kellogg, superintendent of the Battle Creek Sanitarium, is in Denver this week in attendance upon the meeting of surgeons at which there will be assembled some of the greatest authorities of that profession. The annual meeting of the Association for the Study and Prevention of Tuberculosis also convenes there in conjunction with the convention of surgeons. The medical world is expecting that important light and information will be given to the world as the results of these meetings.

On last Sabbath Mr. John Jackson, F. R. G. S., of London, gave a most instructive and interesting address to the Sanitarium family on the work that is being done for lepers by the mission society which Mr. Jackson represents as organizing secretary. Over 12,000 lepers are now under the care of the society in more than eighty stations, located in many countries. Of these, about 4,000 have become converts to Christianity and are, generally speaking, most happy in their faith and appreciative of the hope and comfort which it brings to them.

The Sanitarium Annex already has quite a busy air. The rooms are being occupied as fast as they are in readiness. Mr. A. C. Allen, well known to Sanitarium patrons as desk and cashier clerk, is in immediate charge of the office, with Mr. P. M. Champlin as assistant. Mrs. C. M. Ingersoll is matron, and with a force of helpers is fast getting things in good order. Arrangements are perfected for the opening of the dining-room and culinary department, and these will shortly be carried out. Nearly \$5,000 has been expended in renovating and redecorating the interior of the house, and now a fine, attractive appearance greets the eye on every hand, within and without.

Quite a large number of the patrons of the Sanitarium have made previous visits here, and are here again to learn more of the science of good health, and to receive further benefits from the treatments. We are always glad to greet our former patients under these circumstances. Among others who have arrived during the past week we notice Mr. and Mrs. Scarborough, Bonham, Texas; Mrs. W. F. Thomson, Georgetown, Ky., an ever-welcome friend of the institution and a faithful disciple; Miss Alberta Angell, Centralia, Mo., who has been with us on several previous occasions; Mr. and Mrs. Holbert Greely, Iowa; Geo. W. and Mrs. Eberhardt, Philadelphia, who spent the most of the last season with us; and Mrs. A. W. Taylor, Sledge, Miss.

Among the recent arrivals of those who have for the first time come to the Sanitarium and those who have been here before we may mention the following names: J. B. DeFord, of Ottawa, Kansas, a retired business man, recommended to the Sanitarium by his friend Captain Heritage, a former patient here; J. J. Devney, of Cleveland, president of the Lyceum Bureau of that city; Wm. M. Dodge, engaged in the milling business at Rapid City, South Dakota, a returned patient; P. H. Herwin, who has returned from his farm in Minnesota, where he went some weeks ago to oversee the putting in of his crops. Mr. F. Kahn, a merchant of Aurora, Ala., comes bringing an introduction from Dr. I. J. Newton; C. W. Delvey, a hotel man from Milwaukee, is resting up for his summer's work; Rev. Chas. J. Baldwin, of Granville, Ohio, and B. F. Terrell, of Laurel, Miss., are among the guests of the institution.

ANNUAL MEETING OF THE MICHIGAN SANITARIUM AND BENEVO- LENT ASSOCIATION

THE regular annual meeting of the Michigan Sanitarium and Benevolent Association for the year 1911 will be held in the Chapel of the Battle Creek Sanitarium, on North Washington Ave., Battle Creek, Michigan, Thursday, June 29, 1911, 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.

THE BATTLE CREEK IDEA

VOLUME IV
NUMBER THIRTY

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PUBLISHED WEEKLY AT BATTLE CREEK, MICHIGAN. JUNE 30, 1911

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and Causation of Diseases

THERE is no guesswork or experimentation
in determining the nature of physical ailments
in the cases of Sanitarium patients.

Wholesome Food Acids

Mistaken Notions Mentioned and Corrected
in a Lecture by Dr. J. H. Kellogg—
The Great Value of Acid Elements
in the System

THE special need of every chronic invalid
is better blood. One of the finest qualities



A SWIMMING TOURNAMENT

Dr. A. J. Read gave the following general instructions:

One of the healthiest bankers I ever knew was a man who had a little suburban garden to which he walked three miles every morning, and worked an hour or so before breakfast, also making it his custom to work in it after banking hours, in the evening. He lived to a good old age and retained his health. I think that would be a good example to follow. A man who is obliged to do sedentary work is very apt to suffer from stagnation of the circulation. It is very necessary to

Keep the Circulation Active.

We depend fully as much upon an active circulation.
(Continued on page three)

The most complete laboratories have been established in which the patient is, so to speak, analyzed and examined by piecemeal, so that the exact nature of his trouble is well understood by his physician before his case is really undertaken. Much time is saved and much harm is averted that necessarily attended the old empirical methods of guessing by symptoms the nature of ailments and the remedies required.

The Sanitarium laboratories employed in diagnosis and in ascertaining the real condition of the patients embrace the following branches:

Examination of the Blood,

in which the pressure is taken, the proportion of solids to liquids, etc.
(Continued on page two)

that the blood can have is a high degree of alkalinity. This high degree of alkalinity is necessary for active oxidation processes in the body, for high resistance, vitality, and vigorous life. The more alkaline the blood is, the higher the vital resistance and the greater the power to combat disease.

The acid fruits are highly valuable foods, not only because the acids which they contain nourish the body just as carbohydrates do, but also for another important reason. The acids of fruits and of acid vegetables, such as the tomato, are associated with alkaline substances—soda and potash—which are very needful in the body in an organic form; not the chemical forms of soda and potash such as you find in the drug store, but in a form in which they can be utilized by the

Original from

UNIVERSITY OF MICHIGAN

body. These substances help to maintain the alkalinity of the blood, which is an exceedingly important thing, especially in this country, where meat and cereals are so largely used.

Meat contains a large amount of acid-forming substances, and when it is used freely, the blood is likely to be only slightly alkaline. The acid elements of the blood are increased to an abnormal degree, and the diminished alkalinity of the blood lowers vital resistance. That is probably the reason why the butcher is so likely to die of blood-poisoning if he gets a slight wound. A butcher, or one who eats largely of meat, is a very bad subject for a surgeon.

The Food Acids

found in fruits are malic acid, the acid of apples; citric acid, the acid of lemons, oranges, and grape fruit; and tartaric acid, the acid of grapes. Malic acid and citric acid are found in nearly all sour fruits. They are even found in the potato, and in most vegetables in some degree. It was formerly supposed that the acid of the tomato was oxalic acid, and under this mistaken notion the tomato was condemned as a food; but it has been found that the acid of the tomato is citric acid, the same that we find in the lemon, only associated with different collateral flavors. Rhubarb contains oxalic acid, which is

A Poison and Not a Food.

Oxalic acid is not burned in the body and utilized as a food, but it is treated as a poison and eliminated through the kidneys, and it has a decided tendency to diminish the alkalinity of the blood.

The mucous membrane of the stomach and intestine is a marvelous filter; it has the power to filter out poisons. The best filter you can possibly buy in the market will not take poison out of the water; it will take out sediment, foreign particles and germs, but it can not remove poisons that are in solution in the water. But the mucous membrane of the stomach and intestine is

A Poison Filter.

If the poisons are in solution, they can be removed by it. Unfortunately the mucous membrane can not remove all poisons, but what are known as colloidal poisons, the more common and most deadly poisons, are filtered out by it.

There is another class of poisons which pass readily through the mucous membrane, the crystalline poisons; and these must be dealt with by the liver, kidneys, and anti-toxic glands. Oxalic acid is a crystalline poison which the mucous membrane can not exclude; it has the power to pass through it and get into the blood, and for that reason it is a very unwholesome thing. Rhubarb should be absolutely prohibited from the human diet; it is unfit to go into the body, because there is no protection against it. You all know what oxalic acid is. If you get an ink stain on the carpet, you will perhaps get some oxalic acid to take it out. If your hands are stained with vegetable coloring matter, oxalic acid is a very good thing to remove these stains. It is an excellent bleaching agent, but a very deadly poison.

The Popular Idea

is that vegetable acids are unwholesome and dangerous, especially for a person suffering from rheumatism. This is perfectly true of the oxalic acid of rhubarb, and it is also true of certain vegetables, such as spinach, for example, which contains a considerable amount of oxalic acid. Spinach is not allowed to be served upon the table of our dining-room until it has been parboiled, when the oxalic acid, being very soluble, is dissolved out, and the water is turned off. Rhubarb will be all right if the oxalic acid is taken out of it in this way, but who would want it? It would very soon lose its flavor and its reputation if the acid were removed from it.

Oxalic acid in the body has practically the same effects as uric acid. It is for this reason that it is particularly bad for persons suffering from gout or from any other disease in which uric acid is present in large quantity. A person who has a crippled liver is particularly subject to injury from taking oxalic acid, because the liver has to deal with and neutralize it.

Citric acid, malic acid, and tartaric acid, on the contrary, act as real foods in the body.

They Produce Alkaline Salts,

which increase the alkalinity of the blood, and neutralize to some degree the evil effects of foods which diminish the alkalinity of the blood, such as meat and cereals. When one burns wheat or wheat flour, or barley, rye, or oatmeal, in the ashes that are formed there is found an excess of acids. The same thing happens in the body when these cereals are used as foods; the residue, the material that is left in the body after the wheat has been burned up, is acid; so if one lives almost exclusively on cereals the effect is to diminish the alkalinity of the blood and lower vital resistance. That is the reason why pigs do not do so well when fed exclusively on a corn diet. It is the reason why horses need hay with their corn; on corn and oats alone the alkalinity of the blood is diminished, the animal has pimples and sores on its skin, and does not thrive.

Fresh vegetables contain a valuable assortment of salts, and it is highly important that we should use them daily, if possible at every meal, rather than to use the cereals so exclusively. One of the best of all vegetables is the potato. The potato contains acids which are in combination with soda and potash salts, and this renders it an exceedingly valuable article of food. We have not enough salts in the wheat, but we have an abundance of lime, which is almost entirely absent from the potato; so a diet of bread and butter and potatoes is better balanced than a diet of bread and butter alone. We see also that there is some sense in a diet of meat and potatoes. That is, if you are going to eat meat, you ought to take potatoes with it, because the potatoes are needed as an antidote to the meat.

Do not put this down as a recommendation of a meat diet; because there is

One Fatal Deficiency

if you depend upon a meat and potato diet; there is practically no lime in either one, so your teeth will decay early, your bones will become weak, and you are liable to various

other difficulties that result from a deficiency of lime. A diet of bread and milk and potatoes, or bread and buttermilk and potatoes, would be practically a perfect diet, because milk contains thirteen grains of lime to the pint. There is really a science of eating, of dietetics, and it is important to know these practical things.

The American people would be immensely better for a larger use of potatoes. There is a popular idea that potatoes cause obesity. The potato will not make one fat unless one eats too many; it is entirely a question of quantity. If one eats no more calories than he ought to eat in one day, it makes no difference so far as his weight is concerned whether he eats potatoes or bread and butter. If you do not get into your bank account every week any more than you are taking out of the bank every week, you may be sure your bank account will not increase in size. The bank manager will not put something in there out of his own pocket just for the pleasure of showing you a growing bank account. It is exactly so with the body. If we do not put into the body a little more than we are using every day, we can not gain. It is simply

A Question of Outgo and Income.

The potato is charged with being a cause of indigestion. I have met people who had almost what you might call "starchophobia." They were very much afraid of any sort of starchy food. The fact is that the most innocent food element of all the list is starch. Carbohydrates are the most easily digestible, the most readily absorbed, and make the least trouble in the body. The potato is really the most digestible of all vegetables. The trouble is that people do not eat them rightly. The potato should be chewed until the material that goes down into the stomach is a perfectly smooth puree. Examine every morsel with the tongue by pressing it up against the roof of the mouth until there are no particles to be felt. If eaten in that way, the potato is one of the most easily digestible of foods.

LABORATORY METHODS

(Continued from page one)

tion of hemoglobin is ascertained, the number of corpuscles is counted, and the opsonic index is ascertained, the latter being a test of the power of the blood to resist disease. Other qualities of the blood are ascertained which relate to the vitality of the individual, since "the life is in the blood."

Another department of laboratory work is that devoted to tests and examination of the contents of the stomach. To obtain the data for these tests the patient takes a

"Test Breakfast"

which, after remaining in the stomach for one hour and becoming thoroughly saturated with the digestive fluids and partially digested, is taken out of the stomach and passed over to the analysts. Then a most careful examination and test of this matter are made which determines the amount and character of the hydrochloric acid present; the amount of chlorides, the specific gravity, the degree of acidity, and many other quali-

ties of the digestive work being done by that particular stomach are accurately noted.

Still another portion of the laboratory is fitted up for urinary and fecal analysis. It is now considered that none of the bodily excretions are so indicative of vital conditions as those of the kidneys, and consequently careful and comparatively frequent observations are taken. These tests show the amount, the color, specific gravity, and other general conditions, and the analysis gives the amount of acids, of urea, sugar, indican, albumin, casts, etc., and these are very useful as showing the manner in which the processes of digestion, assimilation, and elimination are being carried on by the kidneys, liver, and many other vital organs.

The examination of the feces is not so universally resorted to, but in many cases it is needed to furnish data as to the condition of the vital processes and the condition of the digestive tract.

There is, in addition to these, the

Bacteriological Laboratory,

where examinations of fluids and solid substances for bacilli and for other pathological conditions are carried on by expert bacteriologists. Blood, sputum, tissues, water, milk, and other food substances, are here being constantly examined, and tests are being carried on to determine the nature of germ diseases and their virulence. The progress of patients under treatment is watched with care, and the food and drink supply is always being inspected in this department. Here, too, are brought specimens of suspected diseased conditions and cases of infectious diseases are quickly judged and passed upon with certainty.

With such auxiliaries as these the work of treating disease is rid of much of its perplexities and uncertainties, and the practice of medicine becomes a definite science in which the results may be calculated with a good degree of certainty, and the doctor always feels that he has the solid ground of actual knowledge as a basis for his work.

HOW A BANKER SHOULD LIVE

(Continued from page one)

ulation as we do upon active digestion. We are apt to hinge everything on what we eat, how much we eat, and how we eat it; but of equal importance is good, vigorous circulation of the blood. It is impossible to have vigorous circulation of the blood unless one takes a certain amount of exercise. Outdoor exercise helps to keep the blood stream pure and clean.

There is another factor in a banker's life that is worthy of note,—the tendency to worry. People worry more over financial matters than almost anything else in the world. If there is anything that is

Not Worth Worry

it is money; it is the last thing in the world we ought to worry about. You can get along better without money than without almost anything else. There is hardly anything that we can not forego with less trouble than we can money. There are people in the world who never have money.

I once visited an island where the people

have no money, and very seldom see any, and do not know what to do with it. Old King George of Tonga told me of his boyhood days when the Port au Prince was captured. They took on shore a large quantity of twenty-dollar gold pieces, and large silver coins, and they did not know what to do with them; so they dumped them out on the beach and the boys and girls used them for skip-pers. They would skip very nicely across the waves. The old king laughed when he

were obliged to do so. In the matter of expense, we are all living as did the aristocrats of a few years ago. The common laborer of to-day expects to have almost the luxuries and the refinements of the princes of other days. It is only occasionally that a Thoreau takes to the woods and shows us how simply one can live if he only thinks he can.

The banker ought to be free from worry. He ought to remember that if financial matters failed, he still has recourse to



VIEWS IN THE BACTERIOLOGICAL, URINARY AND GASTRIC LABORATORIES

told me about it, and said he had learned better now. After the children were tired of playing with them, the people took them for decorations in their cemeteries and for ornamenting their houses.

One could get along very nicely on much less than most of us do. Very few of us realize how economically we could live if we

The Greatest Wealth Man Has, which is within himself. That can neither be given nor taken away. In his education, his environment and his associations, he has the greatest possible wealth; and most of all, perhaps, in that happy disposition which enables one to see the bright side of every

(Continued on page five)

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"FIGHTING DISEASE"

THE use of the above phrase has encouraged in many cases a wrong idea in regard to the legitimate nature and object of medical treatment. Sickness has come to be regarded by many people as an intruder who enters the body as a robber would enter a house, to kill and destroy. He is to be maltreated, killed, or frightened away by any possible means. Get a gun, arouse the police, seize an axe, any way to drive away the invader of our peace.

But disease never comes to us without a cause, and it is simply the effects which the cause produces. For these causes the individual is usually responsible, except in the case of communicable diseases, and then he is not usually exempt from responsibility. More often than otherwise the victim of disease is the invader of his own peace, and disease consists in unnatural conditions that are produced by the errors of the one who suffers the consequence of his own doings. Consequently the enemy that we need to take up arms against is found in our own lives and habits. Instead of making an onslaught upon an imaginary foe whom we imagine comes prowling around and breaks into our dwellings, and whom we endeavor to exorcise, to kill, or frighten away by some bitter doses, or fiery stimulants, or dangerous poisons, or "heroic measures," let us put ourselves into perfect sympathy with our enfeebled system that is doing its best to restore and preserve natural conditions. Instead of trying to stun the nerves into submission and trying to knock the headache "into next week," let us get at the things that excite these struggles between abnormal conditions which have been brought in and those vital forces that are trying mightily to hold their ground and keep us alive.

Disease should be fought as medical men are now fighting tuberculosis. They are not tinkering with the cough, and trying to check the symptoms; cod-liver oil and all other nostrums are failures in frightening away the disease. Let the system be strengthened and encouraged in its efforts to establish normal conditions and the symptoms will disap-

pear just as danger signals are hauled down when the danger is past. It is not the disease that needs to be fought, but the things that produce disease, and it is never too early to take up the fight against the causes. And that fight is almost always a fight with our own habits and folly.

WAR ON DISEASE

AN anti-tuberculosis campaign, together with a fight against all disease and disease-carrying pests, has been instituted in this city. Meetings will be held from time to time and eminent speakers from Detroit, Toledo and Chicago brought here to clearly state the real conditions to the people.

"If you had an epidemic of hog cholera in this vicinity you would have ten experts here

on against tuberculosis. We have established a clinic there for contagious diseases, and at the present time there are 500 patients under treatment in the Sanatorium, as we call it.

"We have to educate the people, and if they can't be educated they will have to be forced.

"Three hundred and ninety-three persons died of tuberculosis in Detroit, and 200,000 died in the United States. During the four years of the Civil War 205,000 soldiers were killed. Therefore you probably can realize what tuberculosis is doing in this country."

Referring to the fight against flies, he said: "As long as you have filth around, you'll have flies, and if there are flies around then know there must be filth somewhere.

"People have strange ideas about the transferring of disease germs. They do not fly through the air, as a great many people are wont to think, but the germ is transferred through another person coming either in di-



LEPROSY IN INDIA—THE ANCIENT PLAGUE OF THE EAST

from Washington in less time than it takes to tell," asserted Doctor Vaughan, of Detroit, while in the city Sunday night, "because the hog is of monetary value. It is worth going after. You can rest assured that ten men wouldn't come from Washington if an epidemic of smallpox broke out.

"We can all learn a little more than we know at the present time. This country has been exceedingly backward in this regard. We think too much of our personal liberty, but our personal liberty has to be curtailed when it interferes with the rights of others.

"Uncleanliness and unhygienic conditions are the fundamental principles of all transferring diseases. Towns and cities along Lake Michigan are the most subjected to typhoid. The water becomes contaminated through sewage and half a mile away it is pumped back for the city's use.

"In Detroit a great work is being carried

rect or indirect contact with the afflicted one. For instance, kissing, drinking out of the same glass, or eating off the same plates, are common sources of contamination.

"I do not believe," said Doctor Vaughan, "that smallpox is transferred through the air. Milk is a hard proposition and the best breeding place for bacteria that I know of. A typhoid patient on a dairy farm will result in an epidemic all along the route over which the milk from that dairy is distributed. Milk should be kept cool. Some cities say that milk should be kept down to a temperature of forty degrees. The root of the whole trouble lies in the fact that the farmer is not running a charitable institution, and he does not get enough for his milk to make it worth while going to considerable expense to keep the temperature down."

While in the city Doctor Vaughan was a guest of the Sanitarium.

HOW A BANKER SHOULD LIVE

(Continued from page three)

cloud, to see the sun shining through when the tempests are gathering, and to look beyond and see the happiness that is just over the way. Many of us are living on the shady side of the street, but if we are, we can at least look over and see the sun shining on the sunny side.

It is a great aid to the retention of good health to know how to take life. Do not take yourself or your own symptoms too seriously. Remember that hundreds of people have gone through the same experiences you are going through, and have come out all right. If you want to send up the blood-pressure or increase any other undesirable symptom, you can easily do so by worrying over it.

Some experiments were made not long ago at Harvard showing how

The Concentration of the Mind

upon any particular thing could increase the symptoms, or the weight in certain cases. A young man was placed on a table which was pivoted at a perfect balance. When he was perfectly balanced, he was told to close his eyes and relax as much as possible. Then he was told to imagine that he was running a foot-race with somebody on the campus. When he began to think of a foot-race and of trying to get ahead of the other fellow, the foot end of the table began to tilt down. The concentration of his mind upon his feet increased the circulation in the feet, and so increased the weight in that end of the body. Then he was given some simple mental arithmetic to compute, and the head end of the table tilted down.

We know perfectly well from that and other observations that by thinking about it you can increase the congestion in your stomach; or you can make more congestion in an ulcerated tooth by thinking about it. If a nerve begins aching, you can aggravate the symptoms. So the non-worrying plan is very essential for the retention of good health. If our banker friend will carry out these general instructions, there is every reason to believe that he ought to enjoy good health.

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 topics.

QUESTION. Why is a diet of vegetables superior to one of cereals?

ANSWER. Because cereals contain an excess of the acid salts. We need alkaline salts to neutralize the acidity of the blood which is formed from the tissues. There are always being formed in the body acids that must be neutralized, and we need the alkali of vegetables for that purpose. The potato contains an abundance of alkali. Fruits are

the finest source of alkali. The cereals contain an excess of acids, and not enough of the alkalis, so we need vegetables or fruits to balance up the cereals. A cereal diet alone produces diminished alkalinity of the blood and leads to disease. That is the reason why we recommend lettuce. We ought to eat some raw food at every meal. If we can not take fruits, then we should take lettuce, which will give the same results. Lettuce, cucumbers, and cabbage are the three vegetables which can be taken in the raw state, if well chewed, and are digested more easily in the raw state than in the cooked state.

Q. Is it wise to drink fruit juice, as grape juice, and to take cream or dessert at the same meal?

A. There is no incompatibility between milk and fruit or cream and fruit. The acids of the fruit form small curds in the milk, it is true, but when milk is taken into the stomach it always forms curds. Milk meets in the stomach an acid gastric juice which forms large, hard curds; and if the curds are formed with the fruit acid before the milk enters the stomach, it is not so likely to form large, hard curds as when it is taken in the ordinary way. I remember a patient who

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Good Health (Monthly)	1.50	" "
The Medical Missionary (Monthly)50	" "
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Battle Creek Idea and Medical Missionary	1.20	" "
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All three journals one year	2.10	" "

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SANITARIUM

Battle Creek, Mich.

could not keep anything on his stomach until I gave him milk curdled with lemon juice; then he got along well. There is no incompatibility between fruit juices and milk, but there is incompatibility between fruits and milk provided the fruits are not thoroughly masticated, because in that case the fruits remain in the stomach a long time, keeping the milk there also, and fermentation results.

ARRIVALS

The list of arrivals at the Battle Creek Sanitarium for the week ending June 25 is as follows: O. M. Sala and wife, O.; J. C. Snyder, Mich.; Fred Rogler, Pittsburg; Mrs. N. P. Starr, O.; Wm. A. Finch and Miss Harriet L. Finch, N. Y.; Dr. F. A. Phillips, Chicago; Wm. Long, James Kennedy and Mrs. Thomas Kennedy, Ill.; Jas. A. Coon and wife, Ind.; F. H. Schorn, Chicago; Mrs. R. F. Sams, Albert and Robert Sams, and Mrs. Jas. L. Anderson, Ga.; J. W. Linton, Okla.; H. B. Knapp, P. R.; P. Ellis, N. B.; Mary E. Odell, and Mr. and Mrs. J. E. Myers, O.; H. B. Keiser, Cleveland; J. L. Longshore and wife, O.; S. M. Anderson and Elizabeth Anderson, Ill.; Mr. and Mrs. C. S. Jones, Ind.; P. Ellis, Mich.; J. B. Heidenreich, La.; T. W. Thoburn, Pa.; Henry Englander and Miss Florence Englander, Cincinnati; Jessie Kegg and Edna Kegg, Pa.; E. M. Horton, Mo.; Mrs. J. H. Robertson, Tex.; Geo. W. Rogers and wife, Ark.; W. M. Terry, Ia.; Mrs. W. N. Squires, Mo.; Miss Margaret Robertson, Tex.; Rev. J. L. Fowle, Turkey; C. L. Nordyke and wife, Indianapolis; Miss Tillie Dueming and Miss Amanda Sieom, Ind.; W. L. Koehn, Chicago; Bert Ricker, Grand Rapids; J. H. Feambart, Mich.; Mr. and Mrs. H. O. Morteman, Okla.; R. J. Wertz, O.; B. Browning and wife, and Casper Ramsby, Mich.; Geo. B. Haines and G. A. Waldorf, Chicago; Geo. D. Schermerhorn, Pa.; Mrs. Colvin Burr, Switzerland; A. P. Tom, Los Angeles; Mrs. J. H. Filmore and Miss F. Filmore, Cincinnati; Isaac Blitstein, Brooklyn; Wm. Burtless, Mich.; C. P. Collins, Okla.; Diantha E. Gildut, Mich.; V. M. Jennings and L. C. Jennings, Mo.; Mrs. W. G. Senderson, Chicago; John A. Hamilton and family, Ill.; L. S. Miller, Ia.; A. S. Kyle, Miss.; E. J. Neville, M. D., Mo.; Edwin Fraser, Ill.; E. O. Douglass, Ia.; Mrs. E. M. Gould, O.; J. D. Linghty, and John Baker and wife, Mich.; R. D. Fowles and wife, and E. M. Downer, O.; Isidor Heidenreich, Chicago; Geo. D. Konigsberg, N. Y.; Hoyt L. E. Whary, Pa.; Mr. and Mrs. Fraus Brown, N. Y.; Isaac Herschberg, N. Y.; W. H. Phillips, Ind.; Miss Libbie Spathelf, Mich.; W. G. Murray, P. R.; Mrs. J. A. Alexander, Detroit; Mrs. M. A. Edmiston and Miss Helen Edmiston, Pa.; Miss Sara E. Bell, Ga.; Mrs. C. M. Brown, Mich.; Mr. and Mrs. J. B. McKee, W. Va.; Dr. Kate Lindsay, Colo.; R. D. McMahon, Ia.; Mrs. J. S. Gordon and baby, and Mr. and Mrs. Alfred Abeel, Tex.; Hattie M. Reed, Okla.; W. E. McComb, Mo.; M. R. Elder, Ind.; J. M. Ward and wife, S. C.; E. Booth, Detroit; Ward G. Foster, New York City; Mark McCohn, Ark.; Mrs. Jake Keller, Mrs. Ike Keller, and M. J. Keller, Tex.; J. D. Rumph, wife and son, Ala.; Curtis Myers, Mich.; Mary C. Phillips, O.; E. H. Kent, Tex.; Mr.

Keep the Health You Have Regain Your Lost Health

Two very significant words—*keep* and *regain*. At the bottom of every success or failure lies the question of **HEALTH**.

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News and Personals

Mr. Fraser Brown, a prominent New York lawyer, accompanied by Mrs. Brown, has come to spend a season at the Sanitarium.

Dr. J. H. Kellogg was in attendance upon the quarterly meeting of the State Board of Health at Lansing on Monday of this week.

Mr. James A. Carr, a prominent manufacturer of Richmond, Ind., is at the Sanitarium and is accompanied by Mrs. Carr.

Dr. W. H. Riley, Sanitarium specialist in nervous troubles, responded to a call from Joliet, Ill., for the purpose of examining and prescribing for a patient.

Mr. J. W. Jarnagin, a merchant, and Mr. C. R. Reed, engaged in the insurance business, of Coal Creek, Tenn., old friends of the institution, are with us for a season.

Mr. Alfred Abel, of Waco, Tex., an old patient at the Sanitarium, has returned for a period of rest and treatment. Mr. Abel has served as president of the Texas Humane Society for twenty years.

The Sanitarium has provided a "Cameron" car for the use of Mr. O. C. Edwards, who superintends the Sanitarium farms and the purchasing of supplies for the institution. This will be a very useful provision for one who has so much running about to do.

Mr. H. B. Bethell and Mr. Preston Bethell, father and son, from Desare, Ark., where they are engaged in business, are with us to obtain a fresh supply of vitality and vigor from our treatments and the beautiful climate and conditions of Michigan.

Mr. L. B. Kerr, of Honolulu, one of Hawaii's successful business men, was with us for two days this week, visiting his family en route to New York. Mrs. Kerr and her daughter Kathleen are spending a portion of the summer with Dr. Elizabeth Kerr-Harris, another daughter.

Rev. E. L. Morgan, a missionary of the Southern Baptist Society from North China, is among the recent arrivals at the Sanitarium. Mr. Morgan has spent a long term of service in the foreign country and comes to us from the home of his father-in-law at Gainesville, Ga.

Among the more recent arrivals at the institution we notice the names of Dr. J. A. Kerr, a practicing physician of Philpot, Ky.; Mr. Albert Boggess, a prominent attorney of Waco, Texas; G. W. Parker, a lumber merchant of Bloomington, Ill.; Mr. F. A. Haman, Wapakoneta, Ohio, a manufacturer of Standard churns; Mr. B. L. Smith and daughter, of West Point, Miss.

The heating plant of the Sanitarium is being reenforced with two new boilers of one hundred and fifty horse-power each.

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.

There are now six boilers in the bank capable of developing one thousand horse-power. It is never necessary to use all the available power at one time, there being at least two boilers in reserve, notwithstanding the great space to be heated and the multitude of engines and motors to be supplied.

The Sanitarium will be represented at the annual meeting of the American Medical Association now being held in Los Angeles by Dr. A. J. Read, who for some months has been doing acceptable work in the eye, ear, nose, and throat department. This meeting promises to be one of unusual importance to the medical fraternity, and is attracting a large number of medical men from all parts of the country.

The illustration on the first page shows a crowd of Sanitarium people assembled at the outdoor swimming pool to witness a swimming tournament. These entertainments are frequently given, and they bring out some remarkable feats of skill and endurance in the water. The participants are in nearly all cases, young men who are employed about the Sanitarium, and who have become experts in the swimming art. The announcement of such an occasion never fails to attract the crowd.

Members of the Sanitarium staff were invited to the residence of Dr. and Mrs. J. H. Kellogg on the evening of the 25th to extend a welcome to Dr. and Mrs. Benton N. Colver on their return from the East, where they have been since early last autumn. About forty guests were present and a most delightful evening was spent in social converse and listening to music by the orchestra. Doctor Colver was called out for a few remarks, in which he expressed his gratification at being able to return and resume his place in the Sanitarium.

In a recent lecture before the Sanitarium family Dr. H. L. Canright gave his hearers an account of the great western province of China, Szech-uan, which he regards as the garden of the empire, and where he has labored for twenty years. Doctor Canright was reared in Battle Creek, and after his medical education chose to give his life to this hitherto unknown part of the world. He has been successful in building a beautiful hospital and establishing almost single-handed a large work of mercy in the capital city of Chengtu, which contains not less than one million people.

Dr. Benton N. Colver, of the Sanitarium medical staff, and Mrs. Colver returned from a nine months' sojourn in Philadelphia on the 23d inst. Doctor Colver has spent this time reviewing his medical and surgical studies and practice in one of the famous Eastern schools, and at the same time in response to the request of the management has taken special work in the treatment of the eye, ear, nose, and throat, with the purpose of taking up this specialty in the Sanitarium. Doctor Colver is well fitted and adapted to this branch of practice, and there is no doubt

that he will distinguish himself in the department. He has already entered upon his duties.

The new swimming pool on the corner of Grant and Barbour streets, opposite East Hall, is now completed and as soon as the high fence enclosing the outdoor gymnasium and the pool is completed the place will be turned over to the men patients of the Sanitarium. This is probably the largest artificial swimming pool in the State. The other outdoor gymnasium and pool, located south of the main building, will be used by ladies exclusively when the other is completed. The cottages located near the new gymnasium are being removed and the lawn will thus be greatly improved.

Quite a number of our former patrons have come to be with us again for a new supply of life and health, which experience has taught them awaits those who apply here for it. Among these we notice the names of J. L. Dickinson, Esq., a banker of Charleston, W. Va.; Mr. C. A. Cabell, a mine manager from Carbon, W. Va.; Thos. McEwan, of Jersey City, connected with a prominent financial concern of that city; Mr. H. D. McCarthy, of Ingersoll, Ont., where he is engaged in mercantile business; Virgil Conkling, an attorney in Kansas City; Theodore Balmer, of New York; and A. Holman, of Thomsonville, Ga.

The weather for the past few weeks has been singularly propitious and enjoyable. For a few days only the heat was just a little too much for real enjoyment out of doors, but an acceptable change soon came and with plenty of rains, and not too much, all nature seems more than usually luxurious and beautiful. Never before have crops promised more bountiful returns. Fruits especially are plentiful and luscious. The strawberry crop is just past and those who love the delicious little groundling (and who does not?) have had a veritable feast. Now the market is being stocked with fine raspberries, both red and black, and blueberries, to be followed quickly by blackberries, plums, peaches and pears, and then the apples. What a feast awaits the lovers of God's good things!

We have with us at present Hon. William Lawrence Merry, Envoy Extraordinary and Minister Plenipotentiary for the United States to Costa Rica. Mr. Merry has been in the government service in Central America for about forty years, a longer term than has been served by any other man. Being obliged to retire on account of his health he was assigned to the government sanatorium at Hot Springs, Ark., but found the climate there too trying for his weakened system, and was then transferred to the Battle Creek Sanitarium, where he is receiving the loving care of two daughters, and the faithful attention of doctors and nurses. Mr. Merry is pleased with his situation here, and we are glad to report that he is improving in health, though he came to us suffering from a severe form of the tropical disease known as sprue.

"Some Heroes, and a Heroine" was the subject of a discourse by Mr. John Jackson, of

London, who spoke in the Sanitarium chapel a few days ago. The speaker did not choose to refer to the deeds of men on the field of battle nor in any of the great crises which have attracted the attention of the world, but of some of the noble men who have gone forth from home and loved ones to do noble service for the poor lepers in distant lands. Many of them have never been heard of in the world. Among those alluded to were Father Damien, the hero of Molokai, and his successor, Father Dutton, who is now in that forlorn settlement of lepers in Hawaii, giving his life for the wretched people. The one heroine spoken of was Miss Mary Reed, a missionary in India, who in some unaccountable way became infected and then gave her life to the lepers in that country. She is now conducting a refuge in the Himalaya foothills.

A visit to the Sanitarium Annex reveals the marvelous transformations that have taken place in the building since it fell into the hands of the Sanitarium decorators. The place is really a scene of quiet beauty, with its lovely lawns outside, and the cool, wide verandas are most inviting and restful. Inside, the new furnishings and freshly decorated walls and floors give an air of elegance that is impressive. The dining-room is exquisite, its ebony finishing contrasting with the snowy linen of the tables and their wares. A large gas range is installed in the kitchen. The parlors are also remarkable for their appearance of elegance and quiet restfulness. To be banished from the cares and labors of ordinary life to such a place as this is certainly like taking a trip to fairyland. The dining-room will be opened on the second of July, it is hoped, and the full service of the institution will then be inaugurated, except that for treatments the guests will go to the main building. Over one hundred people are now domiciled in the Annex, and they are a contented family.

Last week Dr. J. H. Kellogg made a trip to Denver to attend the annual meeting of the American Association for the Study and Prevention of Tuberculosis. The meeting attracted many men of prominence and authority in the study of the causes and treatment of this great scourge, which is contending every inch of ground with the medical profession. There were in attendance many representatives of organized bodies who are engaged in fighting the battle for life and health. Doctor Ravenal, of Wisconsin, brought before the meeting convincing evidence of the connection between bovine tuberculosis and certain forms of the disease in human victims. This relation is especially manifest in the lymphatic glands and bone affections. The contention of Doctor Ravenal, who is one of the eminent bacteriologists of this country, was confirmed by the investigation of others. In Edinburgh investigation has revealed the fact that thirty per cent of the school children have tuberculous glands, and following up the clues they obtained, it was found that without exception this infection could be traced to the dairies, and there were found tuberculous cows in every instance.

THE BATTLE CREEK IDEA

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Two Live Questions

Answered by Dr. A. J. Read.—Acid Fruits? Yes, Lots of Them for Rheumatism. Iced Drinks on Our Tables?—Not on Your Health

ACID fruit is the best kind of diet for a person with rheumatic tendencies. The fruit

Physiologic Medicine

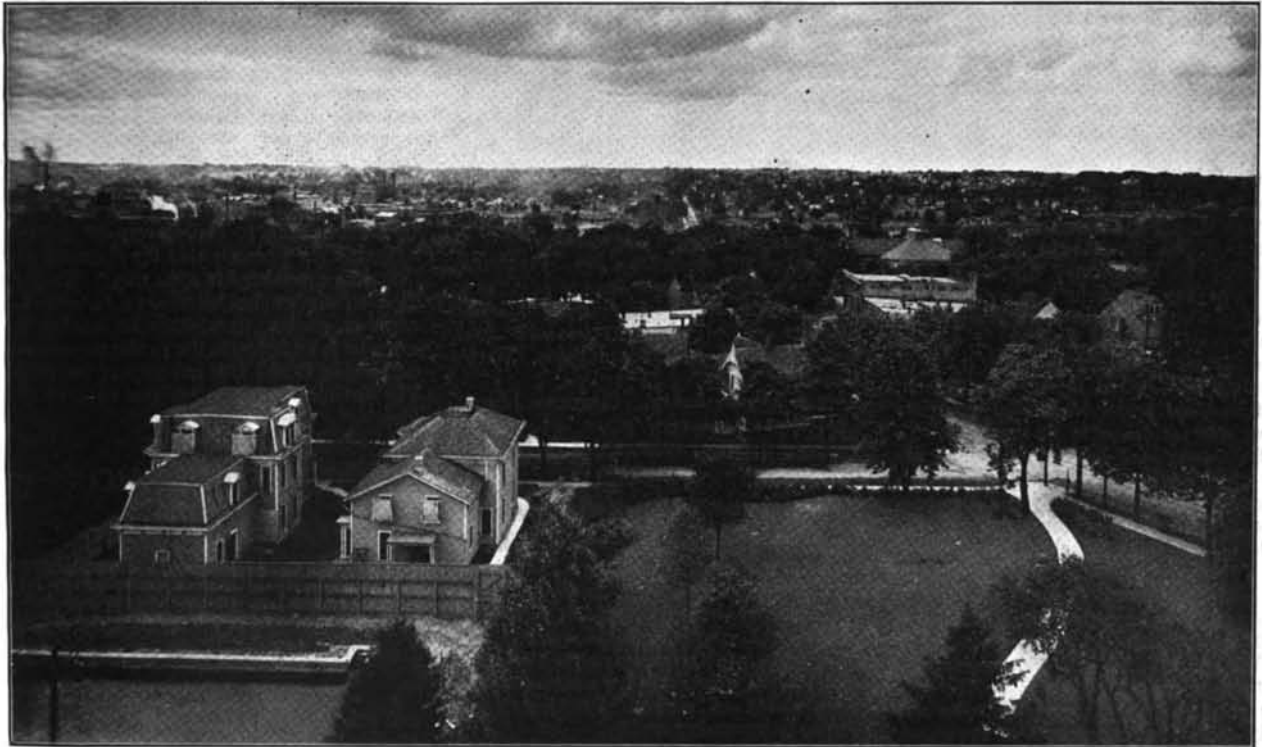
A Natural System for Remedying Physical Ills—Simply Aids the Body to Recover Itself—The Power to Heal is Inherent in the Body

MANY people come to the Battle Creek Sanitarium after having chased all over cre-

Indictment of the Cigarette

Dr. J. H. Kellogg Gives Cogent Reasons Why People Should Not Smoke, and Backs It Up With Strong Testimony

I AM going to give you very rapidly a little survey of the reasons why we do not ap-



FROM THE SANITARIUM ROOF GARDEN LOOKING SOUTH—TWO COTTAGES AND OUTDOOR SWIMMING POOL IN FOREGROUND

acid is by digestion changed into an alkali, and absorbed into the blood to increase the alkalinity of the blood, which helps to dissolve the waste products. A prominent physician visited me in Philadelphia when I was in charge of an institution there, and as he was a patient, he subsisted on the sanitarium diet. He came to me a couple of days after his arrival and said, "Doctor, it is very
(Continued on page three)

ation, at least figuratively, in search of some wonderful healing power which they could have applied to their sick and suffering bodies, in the vain assurance that cures are worked only by the application of some remedy of some sort or other in the form of mineral baths, mud-baths, mineral waters, climate, altitude, drug, or nostrum. This impression is cognate to the other idea that
(Continued on page two)

prove of smoking. I saw a gentleman the other day puffing away at a cigar, and I felt sorry for him that he had to do it. Doubtless he did not want to do it, but that cigar had such power over him that he simply had to obey its orders. Charles Lamb, the great English wit, smoked himself almost to death, and when his doctor told him he must give up smoking, he wrote a farewell to tobacco, and the first lines of the poem were:

"For thy sake, Tobacco, I
Would do anything but die."

Hudson Maxim is, as you know, one of the greatest engineers of the time. He has perhaps made more wonderful discoveries than any other man living except Mr. Edison, and he is a marvelous inventor. Hear what he says about smoking: "If all boys could be made to know that with every breath of cigarette smoke they

Inhale Imbecility and Exhale Manhood, that they are tapping their arteries as surely and letting their life's blood out as truly as though their veins and arteries were severed; and that the cigarette is a maker of invalids, criminals and fools—not men—it ought to deter them some. The yellow finger stain is an emblem of deeper degradation and enslavement than the ball and chain."

That is slavery that binds a man with something he can not stop. The smoker says, "I can stop if I want to." Then pray stop, if not for your own, for the sake of others. Who likes the smell of a stale cigar or of the man that is saturated with tobacco smoke?

Senator Depew relates the experience of his

Victory Over the Cigar.

He was for many years, as you know, the president of the New York Central Railroad, and a senator from New York. "I used to smoke some twenty cigars a day," he said, "and continued it till I became worn out." What wore him out? Smoking twenty cigars a day. It was not hard work for the New York Central Railroad, nor for the Government; it was hard work smoking that wore him out. "I did not know what was the matter with me, and physicians that I applied to did not mention tobacco. I used to go to bed at two o'clock in the morning and wake at five or six. I had no appetite and was a dyspeptic." No wonder; he ought to be a dyspeptic; he had earned dyspepsia. He said, "One day I bought a cigar and was puffing it with a feeling of pleasure which is only possible to the devotee. I smoked only a few moments, and then took it out of my mouth and looked at it. I said to it, 'My friend and bosom companion, you have always been far dearer to me than gold. To you I have ever been devoted, yet you are the cause of all my ills. The time has come that we must part.' I gazed sadly and longingly at the cigar, then threw it into the street. I had been convinced that tobacco was ruining me. I have never smoked from that day to this; and while no one knows better than I the pleasures to be derived from tobacco, I am still well content to forget them, knowing their effect." He had become convinced that tobacco was ruining him.

As you take up a newspaper, you will hardly fail to find an account of some poor boy or man who has been killed by tobacco. Here are a few examples:

"Forty cigarettes a day destroy youth's mind. Sent to hospital because he wanted to wander naked in the street. Nerve centers weak. Physician declared patient's mental state is that of little child, as the result of tobacco."

Cigarette Kills Babe

"A cigarette caused the death of Homer Leslie, aged eight months, yesterday. The

infant was playing about the yard and found a partially smoked cigarette. He put it in his mouth and chewed it for some time. A little later he was taken violently ill, dying in a few hours. Nicotine poisoning was the cause." Here is evidence that there is enough poison in a cigarette to kill a baby. I killed two frogs with nicotine distilled from a cigarette. It is hard to kill a frog; it will survive for half an hour after its head is cut off. But one-fourteenth of a drop of nicotine put into the mouth of a frog will cause instant death.

"The cigarette trust says cigarettes are harmless. Are they? Read and reflect. Fifty to sixty cigarettes a day was the average number Frazer Wilson smoked. He was found dead to-day in the cellar of his home."

"Blind and now insane from cigarettes. Frank Ritchie, a merchant of Glen Cove, sometimes smoked 150 a day. Sight first to fail. Warned that total darkness must follow, he could not abandon the habit."

A man who smokes cigars does not smoke so much because he enjoys the cigars, but because he is so miserable if he does not smoke. As De Quincy said of opium, he took it not to give him pleasure, but to escape misery. The man who does not smoke, and who is happy and comfortable without tobacco, is far better off than the man who is miserable if he does not have this noxious weed, which is all the time making him more wretched, and working his certain ruin.

Brothers Killed by Cigarette Smoking.

"According to the statements of the physicians in attendance, two sons of Joseph Beeman, of this place, died of blood poisoning, the result of cigarette smoking. Fred Beeman, who died last Friday, was ten years old. His brother, Walter J. Beeman, fourteen years of age, died this morning."

"Smoked 100 cigarettes a day. Frequently left classroom to smoke. Became addicted to drink. Brain and body seriously affected. Digestion ruined; can eat no solid food. Leaves post of duty for a spree. Shoots himself in a cab."

"Boy may be insane. Cigarettes blamed. Lea Cesano, seventeen years old, smashed windows, removed clothes and is taken to Bellevue."

Girl Crazed by Cigarette Smoking

"Mamie King removed from her home in a violent condition. Her reason is despaired of. Young woman kept house for her father and has been victim of the habit for years."

We must speak out upon this question more often and more forcibly, because the evil is growing. It is invading the ranks of the various strata of society. Smoking among women is increasing rapidly.

Thomas A. Edison Has Some Ideas

about tobacco. Here is a poster he put outside his office door one day when he found there a packet of tobacco: "Found near my office door. Some degenerate, retrograding toward the lower animal life, has lost his packet. He may have the same by calling on the storekeeper. Thos. A. Edison." That is his view of tobacco.

Employers are finding out that the man who smokes is less efficient than the man who

does not smoke, that tobacco spoils his brain and

Lessens Efficiency.

This has been well tested. Some men were allowed to smoke and then put to setting type, and it was found that the man who smoked made more mistakes in setting type than the man who did not smoke. The railroad employers are finding it out. The Pittsburgh Railways Company issued the following notice to employees, April 20, 1907: "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 intoxicating liquors or cigarettes."

Orison Swett Marden says: "I advise every cigarette victim to have his photograph taken every year and put side by side in his room, where he can see the gradual deterioration of himself from year to year. If this does not startle him and bring him to his senses, no preaching will ever do it, for the pictures will be a sermon more eloquent than ever came from any pulpit."

France passed a law more than twenty years ago prohibiting the use of tobacco by any student attending the public schools. When I was in Switzerland twenty-eight years ago, I found there a law against tobacco smoking so stringent that if a young man less than thirteen years old was found smoking on the streets he was arrested and fined and kept in prison until the fine was paid.

Dr. William E. Quine, professor of the principles and practice of medicine and clinical medicine at the College of Physicians and Surgeons, 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." Whether the man who smokes becomes an imbecile because he smokes, or whether he smokes because he is an imbecile, the professor will not say, but he is sure it is one way or the other. The statistics of insane asylums support this idea.

PHYSIOLOGIC MEDICINE

(Continued from page one)

disease is an entity to be driven out by some form of violent attack. Disease is the burglar or robber in the house, and the medicine is the means of arresting or killing him or frightening him away.

This is All False,

and the sooner we get rational ideas about disease and its remedies the better it will be for us. The only healing power in the world is that which inheres in the body itself. The cure is not in Switzerland, or Colorado, or California, or elsewhere. It is not in baths or electricity, or in any appliance whatever; it is found only in the power of the body to recover itself, through the aid of the principle of life and vitality which we possess from God.

What, then, is the legitimate field of medication? If medical treatment does not cure, what does it do? The reply to that question

is that the utmost that any extraneous agency can do in curing sickness is to produce favorable conditions for recovery, and in case of weakness of vital action to supply natural nutrition and stimulus to the vital organs.

The body may have become so enfeebled by a long struggle against abnormal conditions that have been forced upon it by wrong ways of living that it needs to be aroused and its activities to be quickened; but care should be taken to observe that it is

Natural Stimulants

that are required, not unnatural poisons and irritants that goad the body into desperation in its efforts without imparting any strength with which to perform the work thrust upon it. These unnatural stimulants are like a whip in the hands of a cruel driver, or an ox-goad applied to the flesh of an overloaded and tired-out animal.

Physiologic medicine embraces those agencies and measures which are adapted to the actual wants of the body in its struggle with diseased conditions. If the body is weakened, physiologic medicine undertakes to supply the required nourishment in pure and proper food. Is the body filled with poisons which have accumulated through years of misuse? Physiologic medicine undertakes to supply the natural elements that assist the body in eliminating these poisons. The medicine does not undertake to eliminate them, but to aid the body in its work of elimination.

Are some of the bodily activities suspended or reduced by weakness until the organs have become passive and inactive? Then they may require some stimulation to awaken them to action.

Physiologic Medicine Supplies that Stimulation

with physiologic agencies such as heat or cold, electricity, manual or mechanical manipulations. By these means no harm is wrought to the delicate organs, no evil effects are entailed upon the system, no extra poisons are foisted upon already overloaded liver and kidneys.

The means principally depended upon in physiologic medicine are the various natural forces and resources that are utilized by the body in preserving its health. These are, mainly, good food, pure drink, fresh, untainted air, proper rest and exercise; and the sedative and stimulating effects of heat and cold and of the electrical currents.

Simple as these means seem to be,

They Cover the Entire Field of Therapeutics

except the ground necessarily covered by surgery. They embrace the means and measures relied upon by the Battle Creek Sanitarium in its great work for the multitudes of sick who come to receive the benefits of its ministrations. There is here no mineral spring, no nostrum, and no great specialty, no panacea, and no ingenious cures invented by man for the sake of making money out of a gullible public. We have only those things which God has made for all his creatures in the greatest abundance; they may be found anywhere and had without money or price. We have no monopoly or secrets whatever. The Battle Creek Sanitarium stands only for that which is in perfect accord with

all nature, and advocates only those things, and applies only those remedies which, in the most perfect health as well as in the most extreme illness, minister to the well-being of the individual.

The above statements are a concise and ingenuous declaration of a system of treatment of the sick that is now attracting the attention of the world, and that is receiving the hearty approval of scientific men everywhere. In a few succeeding articles the practical application of these principles in the Battle Creek Sanitarium will be illustrated.

TWO LIVE QUESTIONS

(Continued from page one)

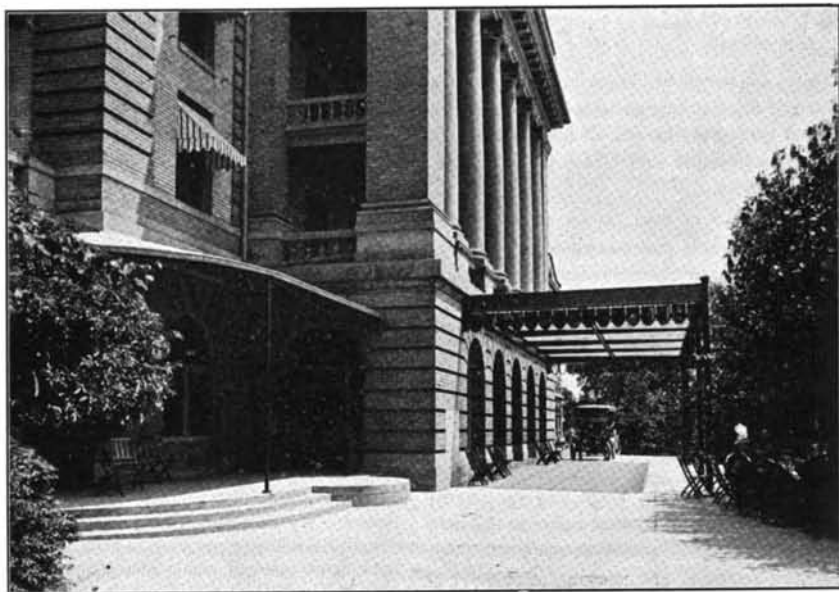
strange; I have never had rheumatism; I have been a liberal meat eater, using it three times a day, and never had any trouble of that kind at all; but since I came here and

for a while, and he did, and got entirely over every one of his rheumatic symptoms. He was converted to the scientific facts in regard to the effects of fruit upon rheumatism.

Fruit Acids Do Not Increase Rheumatism.

Sometimes one gets an exacerbation of rheumatic symptoms following the use of acid fruits, but it is like the springtime house-cleaning—it stirs up a terrible dust, but it is necessary in order to remove it from our premises. So it is necessary, even though one stirs up a few rheumatic twinges of pain occasionally, to have a good quantity of fruit acids, and several days of such a diet, to rid the system of the elements of rheumatism.

Most of us use altogether too little fruit in our diet. There are a few people suffering from an excess of hydrochloric acid in the stomach secretions, who, unfortunately, can not eat fruit acids; but no one ever has to abstain from fruit acids on account of



A VIEW OF THE NEW PORTE-COCHERE

subsist on your fruit diet, I find the urine is charged with uric acid crystals, quantities of them being thrown off. Do you think the fruit diet is causing rheumatism and uric acid diathesis? He complained of even having some twinges of rheumatic pain.

Fruit Makes No Uric Acid

I said to him, "Now, my dear doctor, go back and review all your medical studies, and all your medical literature, and tell me where you can find anything in any fruit out of which your body could manufacture uric acid. There is absolutely nothing in fruit, as every scientific man knows, out of which you can manufacture it; so it is not fruit that has made this uric acid."

Then I called his attention to the fact that acid fruits, being digested, increase the alkalinity of the blood and urine, and help to drive out the uric acid that has been stored up by months and years of subsisting on an excessive protein diet. This is preparatory to getting rid of it. After considering that, he decided he would keep on the fruit diet

rheumatism. On the other hand, it is an ideal food for a person who has a tendency to rheumatism. In fact, if you want to get entirely rid of rheumatism, if you have faith enough to aspire to such a condition, live entirely on oranges, bananas, dates, raisins and figs, with a few nuts thrown in to supply the protein and fat. You could not manufacture rheumatism out of such a diet.

Serving of Ice at Meals

In reply to the question why the Sanitarium is not serving ice to its guests in the dining-room, the following hygienic reasons may be given:

In the first place, we do not have ice here in Battle Creek that is made out of distilled water. We hope to have, however, before the summer is passed. Even manufactured ice that is made out of undistilled water is apt to be charged with germs, and is unwholesome to put into the stomach. You can almost always find sediment in the bottom of a glass in which ice has melted.

(Continued on page five)

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A LETTER TO A DOCTOR

A LADY from one of our great cities who had been an invalid for many years was at Chautauqua Lake when the Health and Efficiency League was inaugurated there two years ago. She listened to the addresses made on that occasion by Prof. Irving Fisher, Mr. S. S. McClure, Dr. J. H. Kellogg and others, and accepted the teachings. Later she came to the Sanitarium as a patient and received very great benefit, and became an enthusiastic disciple and advocate of Sanitarium principles.

Having a very dear friend at one of the State infirmaries she addressed a letter to the physician in charge from which we are permitted to make a few excerpts.

"Dear Doctor: I have taken the liberty to send your name for membership in the National Health and Efficiency League as the first step in behalf of my dear friend. Having regained my own health through the means of these principles after a long struggle with other means, I am now deeply interested in those things that relate to the care of the body. With all your opportunities for the restraint and control of your patients, and your devotion to good air, pure water, exercise and sleep for your patients, I wish to do my utmost to interest you in the subject of proper food. I believe flesh foods to be unnecessary, and even harmful, especially for the class of people under your care. All the protein elements required may be obtained from whole-wheat bread, nuts, and other vegetable foods. For the last two years I have lived without the questionable foods and drinks found on many tables, and have become a marvel to my physicians and all my friends.

"We have all been careless of our lives and our bodies, but the people are now waking up to realize that health is our greatest asset and is well worth cultivating and preserving. Some time ago I wrote to Doctor ——— asking him to make some changes in the care of my friend, and he kindly answered the letter, but in a way quite unworthy of an up-to-date physician. He saw no need of a change of diet, or of discon-

tinuing tobacco, or of any of the changes which I suggested for the benefit of my friend. We therefore found it necessary to transfer him to your care. I wish him to have fruit juice at meals instead of tea and coffee; I wish you would prescribe baths for him two or three times each week, as a health measure. We shall gladly meet any extra expense thus incurred. By making this case a test case you will gain a valuable experience and I am sure we shall see good results."

A HOT-WEATHER STORY

A MAN sat at a table on the celebration grounds Tuesday morning. He annihilated a portion of a succulent ice cream, wiped the perspiration from his face and remarked:

"This is glorious here, but I wish I were in the ice mine this morning."

"The what?" asked the representative of the IDEA, sitting next to him.

"The ice mine down in Pennsylvania, where the ice forms in summer and disappears in winter."

"That's a good hot-weather story, all right," said the next-seat neighbor. "Seems to me I've heard it sprung before."

"It's true; I know it is, for I saw it myself. I'm going back soon with a party of fifteen men who don't believe it."

The man presented his card. It bore the name "E. S. Leonard, Detroit." Mr. Leonard's business is devising advertising signs and selling them.

"The mine is located down near my old home in Potter county, northern portion of Pennsylvania," he continued. "I had heard something about it and so decided to investigate for myself, with the result that I found what I had heard to be correct.

"The hotter the day, the faster the ice forms, and as the weather gets cold in the fall the ice melts away and leaves a small opening in the hills where dry rocks can be seen. Just think of being able to pick ice out of the ground, and the hotter the day the better the picking.

"It is figured that there is a combination of minerals and chemicals that act in the same manner as in freezing by artificial means."

Glancing toward the main building of the Sanitarium, then to the Sanitarium Annex, and again to the college building, with enthusiasm he said:

"I have traveled considerably; have seen many of the great sights of the world, and have seen many results from charity and charitable institutions, but the Battle Creek Sanitarium, with Annex and college building, are certainly the finest bit of work I have ever seen. I am coming back to Battle Creek in the near future for the express purpose of recuperating at the 'San.'"

It's Cool at Battle Creek

MICHIGAN is a cool State. Surrounded as it is by great inland seas it is fanned by water-cooled breezes when all other parts of the country are sweltering in tropical heat. Battle Creek is at the top of the State, 600 feet above sea level, and so catches every breeze from Lake Michigan on the west and southwest, Huron on the east and southeast and Superior on the north. Always a grateful breeze to be felt on the broad verandas of the great Main Building and the Annex, and the spacious well shaded lawns.

Battle Creek affords one of the best havens for those who have to flee away from summer heat. The whole State of Michigan is a great summer resort. Besides the great Lakes, the State is dotted by 5,000 little lakes, each one cooling the air by evaporation, affording cool, grassy banks for camping or picnicing parties. There are scores of such lakes within a few miles of Battle Creek. They make impossible the parched and stifling atmosphere which renders life miserable at so many inland points during a hot spell, and even at the seaside when the wind blows off shore.

It is cool at Battle Creek

The best place for Invalids in the world

ARRIVALS

THE list of arrivals at the Battle Creek Sanitarium for the week ending July 2 is as follows: Theo. Bahuer, New York City; Mrs. Isabel Erlaughter and Chas. Wolohan, Mich.; E. Z. Griggs, Pa.; Mrs. T. T. Clark, Tex.; Thos. E. Fenn and P. D. Fenn, Chicago; Geo. Shepard, Ind.; M. M. Barlow and J. C. Snyder, Mich.; S. B. Kirtley, Mo.; W. C. Holbrook, O.; Miss Lotta L. Weber, N. Y.; Mr. and Mrs. Edgar L. Morgan, China; H. S. Howard, Ore.; Mr. and Mrs. J. C. Cluets and Mrs. Jno. B. Bain, O.; Miss Belle G. Brown, Boston; Mrs. E. Mather, Ont.; Helen Merion, O.; Mr. and Mrs. Wesley Creveling, Philadelphia; T. T. Clark, Tex.; E. L. Graves and Evangeline, Ill.; O. H. Griggs, Minn.; Florence E. Baker, Ia.; Mr. W. F. Woodard and wife, N. C.; Jos. Pfeifer and wife, Ark.; W. C. Gunn, Kans.; J. K. Barton, Minn.; D. C. Dunn, Ill.; Electa Storrs, Helen Storrs, Lizzie Hill, and Albert Storrs, Ky.; Jno. L. Dickinson, W. and W. A. Cobell, W. Va.; Mr. and Mrs. A. C. Baxter, O.; M. B. Robert, Miss.; Mrs. Jas. E. Jones, Mrs. R. E. Brooks and Edwina Brooks, Tex.; Mrs. G. L. Ellis, Ga.; Joseph Lea Fearing, Jr., Chicago; Hans O. Sane, Minn.; M. C. Harrison, Ia.; D. C. Dunn, Neb.; J. F. Schmale, Ill.; E. O. Douglass, Ia.; F. J. Fishbeck, Mrs. R. J. Hamilton, and Mrs. Rachel Putnam, Mich.; Celia Cooper, Edith Cooper, Jas. Cooper, Geo. H. Cooper, Ill.; Geo. F. Wilson, Ont.; Geo. W. Parker, Ill.; L. Pattillo, Ala.; Daniel Nettleton, Ore.; H. K. Hardy, Miss.; Bettie K. Starke, W. Va.; E. W. Glover, Ill.; Maud H. Taylor, New York City; O. S. Carlton, Tex.; Mrs. O. M. Smith, Ore.; Henry N. Garland, Mo.; W. E. Keeler and Mrs. M. S. Brooks, Cincinnati; L. C. Pickening, Ky.; D. T. Flyrus, Okla.; C. A. Gesell, Miss Margaret E. Gesell, Wis.; Mrs. Robt. Keither and Frances Keither, Mo.; Walter B. Down, wife and son, Ill.; Hugh McBurney, Okla.; J. P. Madison

and son, La.; F. M. Barnhart, O.; Miss Westerman, City; Mrs. C. H. McNie, Ia.; J. A. Crawford and wife Julia Crawford, Tenn.; Mrs. Howard Bell, Miss Bell, and Mrs. Arnold Broyles, Ga.; A. G. Morse, Ill.; Jessie L. Mitchell, Mich.; H. A. Bauman and wife, and Miss Grace Bauman, Mich.; Mrs. Jas. H. Dexter, Denver; Miss Sue M. Dilts, Ky.; Mary F. Kirtland, Mich.; R. W. Alsbrook and A. B. Alsbrook, Ill.; Schuyler Campbell, N. J.; Mrs. John McAters, Ky.; G. S. Lowman and wife, Ala.; Grace E. Baughman, O.; Mrs. M. L. Herndon, Texas; Frances N. Coprien, Toledo; Chas. A. Arker, Ill.; E. S. Moodie, O.; Richard Cronin, New York City; W. E. Williams, Chicago; G. N. Roan, Ia.; Mrs. A. J. C. Bond, Wis.; A. L. Stein, City; Dr. Vlasta H. Drabos, Ia.; John W. Henderson, Fla.; Mrs. Sidney A. Reese, New York City; Dr. W. G. Anderson, Conn.; E. N. Lupper, O.; A. Johnson, Philadelphia; S. Herzbey, Mo.; John J. Chester and John Chester, O.; Mrs. W. H. Sonfield, Tenn.; T. Brin, Tex.; Mrs. J. O. Brinkerhoff and Rachel, Mo.; Mrs. W. J. Weale and W. F. Weale, and Mrs. Della Baker, Tex.; Mrs. Florence E. Walton, Miss.; C. R. Ballard, Ala.; J. Alfred Ackerman, N. J.; Mrs. W. D. Cheadle, O.; Amelia J. Prior, O.; H. M. Steinberg, Chicago; Sigfried Adler, New York City; Mrs. C. H. Newman, St. Louis; Miss W. Reynolds, Mich.; Miss Kellogg, Ill.; Miss Ranney and Miss Allen, Mich.; W. S. Sorrels, Ark.; Nina Dennison, Kans.; B. A. Morris, Miss.; Julius Caber, La.; Iona White, Kans.; Alice White, W. Va.; Azoo A. Coburn, Mass.; Mrs. L. Friedlander and Mrs. J. Mandelbaum, N. Y.; Mrs. Henry Brown and daughter, and J. F. Fevestere and wife, O.; Mrs. J. Douglass and Miss I. Douglass, Can.; Laura M. Frutchey, Pa.; J. J. Rupp and wife, and Jas. D. Bruce, Mich.; J. F. Bruce and J. T. Burus, Tenn.; Edwin N. Broyles and Louise P. Broyles, Ga.; Mrs. Hattie E. Wallace, Mich.; Mrs. A. C. Schulz and F. A. Schulz, Detroit; F. W. Kochage, Va.; E. F. Burdetts, W. Va.; A. C. Johnson

and Mae M. Bingham, Chicago; Martin D. Baker and son, Ill.; Grace Hursch, Minn.; W. Z. Carr and B. J. Carr, Ind.; S. H. Needs, Cleveland; Harry Chase, Grand Rapids; H. S. Tilleston and wife, Ky.; Martha N. Lamson, Colo.; Hazel Steckel, Toledo; C. A. Knox, and C. H. Owen and wife, Ark.; Mrs. L. Richardson Baxter, Inson Baxter and Elizabeth Baxter, Tenn.; Mrs. H. A. McCoy, Ark.; Mrs. P. H. Tetreau and A. L. Haring, La.; J. C. Wayman, Chicago; T. C. Wisegamer and wife, Ill.; R. C. Berlin, Chicago; P. O. Boyd, Calif.; E. C. Dennis, Chicago; J. A. Holley, W. Va.; A. Goodholm and Harold Goodholm, Okla.; Mrs. J. T. McCaully, Ill.; H. D. Burrill, Syracuse; C. S. Jones, Ind.; A. M. Barnes, Cleveland; S. P. Nickels, Pa.; Thos. E. Kant and Lyman A. Barber, M. D., New York City; A. F. Huber, Minneapolis; Mrs. R. W. Halstead, and Thomas and Ernest Halstead, Ga.; Mrs. Geo. Shepard, Ind.; Mrs. A. B. Alsbrook and daughter, Ill.; Mrs. J. W. McDonald and Mrs. S. McDonald, Mo.; Jessie M. Hill, Mass.; Maud Morey and W. G. Lunderson, Chicago; B. J. Hedge and wife, and Mrs. B. J. Trembley, Detroit; Mr. Urban C. Pommert, Ind.; Myrtle C. Schafer, Mich.; D. H. Westbrook and wife, Ark.; Mr. and Mrs. L. F. Parker, Okla.

News and Personals

Harry Chase, of Lansing, assistant attorney-general of Michigan, spent Sunday at the Sanitarium with friends.

H. D. Burrill, owner and editor of the Syracuse *Journal*, the leading sheet of Syracuse, N. Y., is a welcome guest.

P. P. Shelby, an eminent railroad man of Painesville, Ohio, with his niece, Miss Helen Shelby, is among the holiday guests.

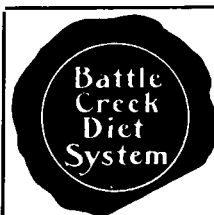
Mrs. T. H. Bell, of Atlanta, Ga., arrived on Monday with her son, Hugh Inman Bell. Mrs. Bell declared the weather in the South to be extremely disagreeable.

Judge L. F. Parker and wife, of Vinita, Okla., who were recommended to the institution by Judge W. C. Jackson, of Muskogee, Okla., are guests at the Sanitarium.

J. W. McDonald, the congenial mercantile and wholesale dry goods man of St. Louis, asserts that the Sanitarium is "just the place" and will spend a couple of weeks here.

Mr. and Mrs. W. R. Graham, who make an annual visit to the Sanitarium for treatment, arrived in Battle Creek Monday afternoon from their home at Greenville, Texas.

T. J. Franklin, a well-known ice merchant of Cleveland, is with us for a week's treatment. Mr. Franklin is very enthusiastic about Sanitarium methods and has become a confirmed vegetarian.



Keep the Health You Have Regain Your Lost Health

Two very significant words—*keep* and *regain*. At the bottom of every success or failure lies the question of **HEALTH**. No one ever has perfect *health*; but every one knows, vaguely, that he feels better, and can work better, on some days than he can on others. Such a degree of *Health* brings *Efficiency*, and in these days of competitive struggle *Efficiency* spells *Success*. When you know how to live, then, and then only, will your body be *efficient*. Our booklet

Please send me a copy of your Diet System book, "Healthful Living."

Name.....

Address.....

KELLOGG FOOD COMPANY, Dept. H-7,

BATTLE CREEK, MICH.

Sent to you free for the asking will explain our methods of keeping the body **efficient**. Cut

out the blank on the left, fill in the proper places, and mail to us.

Ask us any questions you wish about your condition, and they will be answered free of cost.

"HEALTHFUL LIVING"



George E. Judd, business manager of the Sanitarium, spent a couple of days last week at Leavenworth, Kansas, bringing back with him his father-in-law, Charles Heberd, for treatment at the Sanitarium.

Among the many prominent personages who believe in taking advantage of a "good thing" is W. S. Sorrells, a retired druggist of Hot Springs, Ark., who makes us a yearly visit. Mr. Sorrells arrived Sunday.

Among the distinguished practitioners with us this week are Dr. M. Ravdin, of Evansville, Ind., and Dr. L. A. Barber, of the Polyclinic Hospital, New York City. Doctor Barber was accompanied by Mrs. F. A. McDowell.

R. P. Boyer and wife, of Springfield, Mo., are enjoying treatment and recuperation at the Sanitarium this week. Mr. Boyer is secretary of the United Iron Works Co., a large corporation with executive offices in Springfield.

James S. Hale, wife, and three daughters, Emma, Ethel and Margaret, arrived at the Sanitarium Tuesday from Memphis, Tenn., to spend a few weeks recuperating. Mr. Hale states that the weather is a "roaster" in the South.

W. C. Hughes and wife, of Emporia, Kansas, who are among the annual visitors to the Sanitarium, and have found the methods here superior to those at any of the various

sanitariums they have visited, are among this week's guests.

Nine years ago Eugene Ward, of Caladonia, Mich., received treatment at the Sanitarium that has prompted his return this week for a few weeks' visit. Mr. Ward can not say enough for his treatment here, and during those nine years has recommended the institution to a great many friends.

Dr. John H. Pope and Mrs. Pope, of Marshall, Texas, arrived at the Sanitarium on Tuesday afternoon for treatment and rest. Doctor Pope, who is one of the most eminent practitioners in Marshall, will return within the course of a few days, while Mrs. Pope will remain for a couple of weeks.

J. Lehman, of New York, and his brother, L. Lehman, of New Orleans, La., chose the Sanitarium as the best place for a week's recuperation, and so we have them with us this week. The former has visited the institution several times before. He was instrumental in persuading his brother to come here.

C. W. Sutton and wife, formerly of Battle Creek but now of South Haven, Mich., are among the guests at the Sanitarium this week. Mr. Sutton is known to about all the old business men in this city, where he was once a prominent merchant. He now owns a large farm of extensive proportions immediately on the outskirts of South Haven.

The State Board of Health has arranged for a traveling exhibition in connection with

the Agricultural College, commencing August 1. It is expected that there will be twelve cars altogether in the exhibition, and they will go from town to town through the State. The exact date of their arrival in Battle Creek is not known.

A modern playground for the public children has been opened by Dr. J. H. Kellogg at the rear of his park home, Manchester street. This playground has all the equipment of those of the larger cities, including swimming pool, slides, Maypole, numerous swings, teeter-totters, etc. An instructor has been engaged to teach the children swimming and to oversee the training generally.

That there has been almost no progress made in the last ten years in the extermination of tuberculosis, is the declaration of Dr. J. H. Kellogg, who has just returned from the convention of the American Association for the Prevention of Tuberculosis, at Denver, Col. "The statistics will show it," he emphasized; "something more must be done and done at once."

Among the notable visitors at the Sanitarium this week was Hon. John M. Bishop, of New York City. Mr. Bishop is an executive in the government service and connected with the New York customs department. It is said that he is one of the "black-horses" behind the big customs investigations being carried on from day to day at the landings of the ocean liners in New York, where the wives of millionaires attempt to smuggle valuables into this country from a foreign domain.

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 Sanitarium family was favored on last Sabbath afternoon with a "homely" talk on "Present Conditions in Turkey" by Rev. J. L. Fowle, who has served over thirty years as a missionary of the American Board in the interior of Asia Minor. The speaker presented to his hearers familiar views of life in those regions, and methods employed by the missionaries in reaching a people who are sunken low down in poverty and wretchedness and are yet bigoted and almost invulnerable in their attachment to Islam. The talk was replete with interest.

To say that the Sanitarium and the success of its treatments are known not only the country over, but the world over, is no exaggeration. Even into the heart of Africa, the deserts of Egypt, and the plains of India the name and location of the institution has penetrated. It is nothing unusual to have as guests missionaries from West Africa, Egypt, Turkey, China, and many other foreign countries where civilization has yet to work its wonders. Among this week's guests from the foreign countries are James G. Hunt, a missionary from Egypt, and A. G. Adams, of Batanga, West Africa.

Among the guests this week were W. H. Westbrook, merchant, of Pine Bluff, Ark.; William E. Aiken, New York City, and brother, Richard Aiken, of Flushing, Long Island; A. F. Huber and Mrs. A. H. Castle, of Minneapolis, Minn.; J. F. Burns, merchant, of McKenzie, Tenn., accompanied by his father, J. T. Burns; Charles Knox, merchant, of Pine Bluff, Ark., whose father was here two years ago; H. M. Steinberg, Chicago druggist; P. K. Douglass and mother, of Montreal, Can.; A. A. Colburn, manufacturer, of Holyoke, Mass.; and Annie M. Wells, missionary from Chungking, China.

The weekly meeting of the Sanitarium Christian Endeavor Society on last Friday evening was led by the president of the society, Mr. W. C. Kellogg, and the time was filled by the returned delegates from the State Convention at Detroit. There were seven of these, and five of them were at the meeting and contributed a program that was full of information and interest to those who listened. It was voted to send a delegate to the National Convention that assembles in Atlantic City on the 6th instant. Miss Minnie Gerow was selected for this mission.

One of the most noted of this week's guests was the Hon. Virgil Conkling, of St. Louis, prosecuting attorney of Jackson county, Mo. As prosecuting attorney Mr. Conkling gained fame in the Doctor Hyde case, which agitated the whole American population. The case was taken to the Supreme Court and Hyde was granted a new trial, which will be heard before the famous Judge Latashaw in the Jackson county criminal court on October 16. Mr. Conkling is gaining a much desired and needed rest preparatory to conducting the big fight.

We are glad to have with us Prof. G. L. Imes, of Tuskegee Institute, Alabama, who purposes to put in his vacation here studying

the methods and principles of this institution with the object in view of incorporating them into a system of hygienic studies for the students of that large school. The faculty of Tuskegee became much interested in Battle Creek principles through the visit of Mr. Washington last spring and through a subsequent visit of one of the Sanitarium physicians at Tuskegee. And they are determined to avail themselves of the practical benefits of this knowledge. Professor Imes is accompanied by his wife, and they are enthusiastic in their present work.

A letter was received recently from Sir Horace Plunkett, F. R. S., LL. D., of the King's Privy Council, formerly minister of agriculture to Ireland, and a great English economist, of Dublin, Ireland, stating that Sir Horace will be a guest at the Sanitarium in December. Sir Horace is the foremost living descendant of the famous house of Plunkett, and at the present time makes his headquarters in the spacious and beautiful old Plunkett manor in Dublin. He is known as the idol of Ireland, especially to the peasant class. It is said that he has done more than any one else to raise and better the conditions in Ireland. During a previous visit to the Sanitarium, last year, he became a strict vegetarian.

The summer term of the Normal School of Physical Culture was opened on July 3 with the most favorable indications for a successful session. The enrollment at that time was forty-two, and quite a number are still expected to join the classes. The school is under the direction of Wm. W. Hastings, Ph. D., the principal, and he is assisted by an able corps of teachers in all branches of the science and art of physical development. The following instructors have been called in to assist in the work of this term: Miss Edith Moody, of the Ohio Wesleyan University, instructor in swimming; Mr. H. E. Zilisch, Lawrence College, Appleton, Wis., instructor in military marching; Mr. Guy S. Lowman, University of Alabama, instructor in fencing. Members of the faculty will also participate in the work. No pains are spared to render the work of this school first-class in every respect.

The Sanitarium participated in the "sane Fourth" celebration in which Battle Creek overdid itself this year, by holding a "homecoming" reception on the lawn of the Annex on the evening of the second. There was a very large crowd, who took great enjoyment in watching the moving pictures by which various hygienic and sanitary reforms were well illustrated. Films were exhibited showing the depredations of the fly, including the process of breeding, the work of infection, and the spread of disease; the unsanitary dairy, and the approved way of furnishing a pure milk supply were illustrated; and another film carried pictures of the Sanitarium methods of applying hydrotherapy. The beautiful lobby and halls of the Annex were illuminated and open to inspection, and a large orchestra under the leadership of Mr. Drever furnished delightful music. At the same time Mr. Edwards and his assistants dispensed lemonade of the most approved

quality to the thirsty crowd. The entertainment was a great success in every respect.

The annual meeting of the Michigan Sanitarium and Benevolent Association, the incorporate name of the Battle Creek Sanitarium, was held in the chapel on Thursday, June 29. The business consisted of the election of five trustees to supply the vacancies caused by the expiration of terms of office. Those whose terms of office expired were E. L. Eggleston, W. H. Riley, M. W. Wentworth, M. A. Mortensen, and J. F. Byington (deceased). The first four named were chosen to succeed themselves and B. N. Colver to fill the remaining vacancy. The treasurer's report submitted by G. H. Murphy brought the financial situation down to Dec. 31, 1910, and showed that the plant represents an investment of \$1,785,829; and a present worth of \$1,043,200. During the year 1910 charitable work was done to the extent of \$63,052.53. There has been a gradual reduction in the amount of indebtedness, and an increase in the patronage, which in consideration of the large concessions made to the sick poor shows that the institution is enjoying a good degree of financial prosperity.

Dr. W. G. Anderson, physical director at Yale University, and well known throughout the country as authority in the lines of physical development, spent a few very busy days at the Sanitarium. "I came here for rest," said the Doctor, "but except for the first hour and a half, it has been a busy time for me." He found so many interested in his specialty who wished to avail themselves to the utmost of the opportunity to learn from one so well versed in the science and skill of physical culture that he was in constant demand. And we acknowledge with all appreciation the Doctor's kindness in that he was most ready to give himself unsparingly to his chosen work. On several occasions he addressed the students in the Normal School of Physical Culture, and the patients at the Sanitarium. On one of the mornings he gave a most forceful and tactful talk to boys, clearly bringing out the necessity of avoiding smoking, drinking, and profanity, if they ever hoped to make anything out of themselves of use to the world. His visit will be remembered for a long time. Doctor Anderson will spend a week with us next year.

The Third Annual Meeting of the Health and Efficiency League of America

THE third annual meeting of the Health and Efficiency League of America will be held at Bay View, Michigan, in connection with the Assembly at that place, on August 14, 15 and 16. An interesting program has been arranged. Among the speakers will be Dr. H. W. Wiley, Chemist of the U. S. Department of Agriculture, and Dr. J. N. Hurty, Secretary of the Indiana State Board of Health. A trained nurse will also be in attendance, who will give special instruction daily in the home nursing of the sick and dietetics. A question box will be opened daily by Dr. J. H. Kellogg. Only members of the League will be admitted to these special classes.

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PUBLISHED WEEKLY AT BATTLE CREEK, MICHIGAN. JULY 14, 1911

THE NORMAL SCHOOL OF PHYSICAL EDUCATION

The Latest Feature of the Battle Creek Sanitarium's Educational Work—The Opening of the Summer Term Under Auspicious Circumstances

THE Normal School of Physical Education is an institution closely affiliated with

Opening of the School

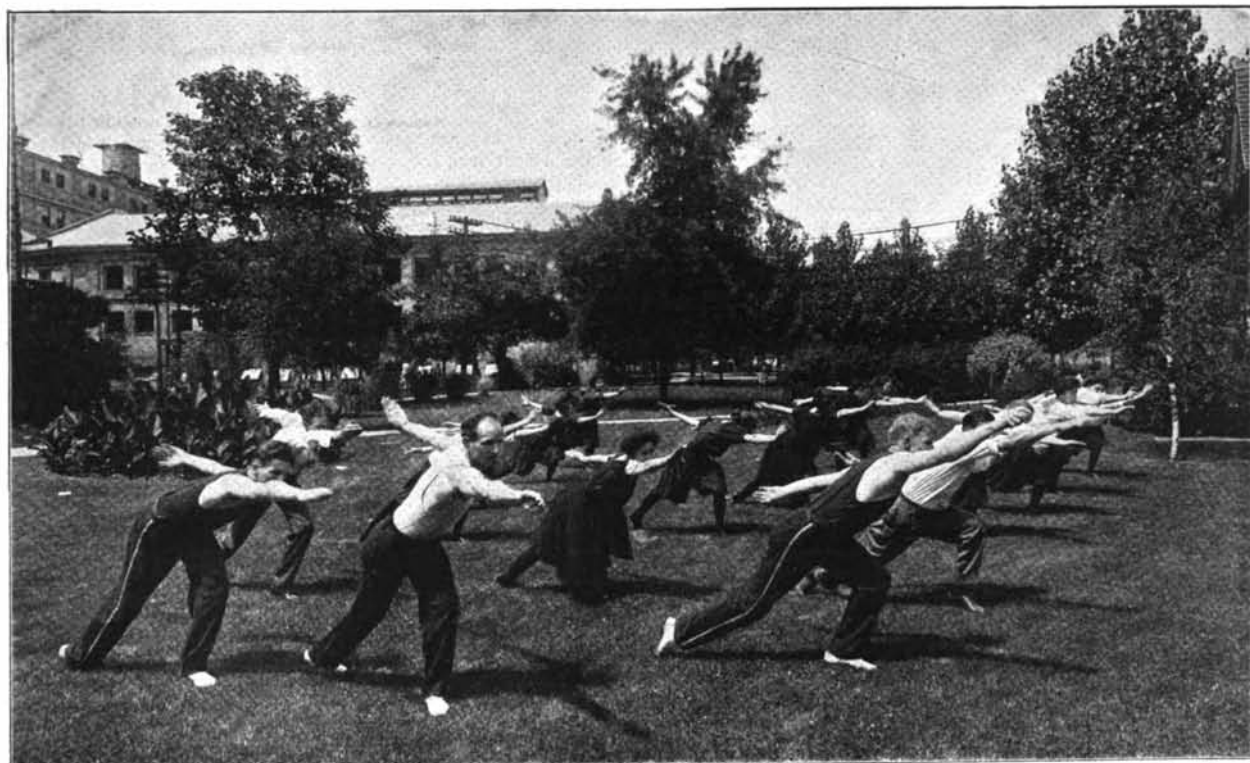
Address to the Students of the Normal School of Physical Education at the Opening of the Summer Term—
By Wm. G. Anderson, M. D.,
Physical Director at Yale

WE have here the new summer school, or the summer school reborn, and I am par-

The Deadly Cigarette

Doctor Kellogg Tells His Patients of the Evil Physiological Effects of Cigarette Smoking—A Source of Bright's Disease

THE following recently appeared as an editorial in a well-known daily paper: "In



ATHLETIC POSING—BASEBALL THROW

the work of the Battle Creek Sanitarium and is carried on in harmony with the principles of the institution. In addition to the regular school year's work which opens early in October, a summer term was projected for the benefit of those who wished to fill their
(Continued on page five)

ticularly glad to be here to rock the cradle. I can not refrain from looking backward a good many years, for I have been in the work a great many years, and referring to some of the experiences of the last four decades. If I seem to speak with too much
(Continued on page two)

the cold routine of daily news there comes a short story from Syracuse. It tells of the death of William S. Strauss in a hospital in that city. According to the doctors and the facts, Strauss was killed by smoking cigarettes. He managed to smoke himself to death in five years, and this in spite of the

fact that he was thirty-four years old when he took up the habit. He died at thirty-nine, a death of atrocious suffering, calling for cigarettes when he was too weak to hold them between his lips. A few days before his death he became paralyzed in his legs and hands and lost the power of speech. He died because with cigarettes he had poisoned and destroyed the nerves of his body."

Why Does the Cigarette Do So Much Harm?

We will consider some of the physiological reasons.

One of the most important functions of the liver is the destruction of poisons. Whether these poisons are generated in the body or taken in from the outside, it is the function of the liver to destroy them. The liver has work enough to do in destroying the poisons normally produced within our bodies; for the food we eat, especially the redundant protein, is converted into poison before it leaves our bodies. It is the duty of the liver to deal with this poison, and to convert it into less poisonous forms. For instance, much of the uric acid, which is very poisonous, is converted into urea, which is comparatively harmless unless in large amounts, and is eliminated. Of the poisons destroyed by the liver, some are carried off by the bile, and others are eliminated by the kidneys. The liver deals with alkaline poisons, and the kidneys deal with acid poisons. Nicotine, being an alkaline poison, is dealt with by the liver. The smoking of a single cigar or cigarette would be sufficient to kill a man if it were not for the fact that the liver protects him and makes

A Fight for His Life.

A man who smokes a cigar takes into his system poison enough to kill two men. But it is taken in in small quantities, and the liver deals with it as it comes along, so the graduated dose does not destroy his life; but in the meantime the liver is being worn out. The process may be compared to pouring mud or filth through a Pasteur filter to prepare water for the house. You put into the filter the cleanest water you can get, but suppose instead you poured into it the filth from the barnyard, or sewage from the gutter, how long would the filter remain valuable? The liver is a filter, and nicotine is a highly poisonous kind of filth.

When the Smoker's Liver Becomes Worn Out

the poisons will pass on into the body and terrible mischiefs will occur. It has been found, for instance, in experiments made upon animals from which the liver was excluded so that the poisons passed directly into the general circulation, that it takes only half as much nicotine to kill the animal under such circumstances as under normal conditions.

These poisons, then, when the liver gets worn out, pass on and must be dealt with by the thyroid gland. The thyroid gland is a poison-destroying gland, but its capacity is limited. When this gland becomes degenerated, the body loses the power to deal with the poisons; then the kidney which filters the poisons out has to deal with a much larger amount of poisons than it ought to

have to deal with,—poisons which should have been destroyed by the liver before they got to the kidney. The kidneys undertake to eliminate them, and are overtaxed in the process. As a result we have Bright's disease, congested kidney, and cirrhotic kidney, the big white kidney that results from the chronic poisoning of tobacco.

It is found that ten per cent of all tobacco smokers have

Incipient Bright's Disease,

generally without being aware of it. When the Czar of Russia was found to have Bright's disease some years ago, many of his friends in Paris, business men, became alarmed, and thousands went to the doctors and had examinations made, and a large proportion of these men were found to have incipient Bright's disease, without knowing it. Bright's disease is very insidious and comes on as a result of these chronic degenerations resulting from the taking in of poisons; and there is no poison more active, more insidious and certain in its effects in producing Bright's disease than nicotine. It is, in fact, largely responsible for the large increase of Bright's disease, which has more than doubled in this country in the last twenty-nine years. Two hundred and sixty persons in Chicago, for example, are dying of Bright's disease now where one hundred died twenty-nine years ago, reckoning in the same proportion to the population.

The poisons not being destroyed by the liver and not being eliminated by the kidneys,

The Heart Becomes Affected.

No athlete is allowed to smoke when in training. No man in training for a boat race is allowed to smoke. No baseball player is allowed to smoke when he is expected to do his best upon the baseball field. A good sprinter is never allowed to smoke, because smoking always weakens the heart. The poison of tobacco is a heart poison particularly; it paralyzes the heart.

In 1903 seven billion cigars and three billion cigarettes were smoked in the United States. Cigarette smoking is increasing in the United States at the rate of four hundred million a year. In 1908, only five years later, instead of three billions, it was fifty-five billions. Just think of what an enormous rate of increase of cigarette smoking! It certainly is time something was done to stop this terrible flood of poisons which is pouring in upon the world.

Smokers are twice as likely to have consumption as those who do not smoke. Statistics of the Phipps Institute of Philadelphia, where people are treated for consumption, and post-mortem examinations made, show that

Twice as Many Smokers Have Consumption as those who do not smoke.

John Ruskin, the great literary critic and artist, of England, said: "Tobacco is the worst natural curse of modern civilization." He said "natural curse" because it grows out of the earth; but it is an unnatural curse, because it was never intended that man should use it.

"I feel a great interest in any effort to check the pernicious habit of tobacco using.

It is not only a nuisance, but a moral and physical evil and a shame to our boasted refinement and civilization." These were the words of the Quaker poet, John G. Whittier. He was a man of intelligence and of observation, whose judgment certainly has great weight with us.

OPENING OF THE SCHOOL

(Continued from page one)

ipse dixitism, it is because I am no longer a young man but an old man in the work, and I speak exactly as I feel—strongly in the matter.

Now, let me turn Socratic for a few minutes, and ask you one or two questions. What are you here for? And what do you expect to get from this place? And in return, what are you going to give this institution? I want you to become imbued from the very outset with this belief, that you are going to make the school. We are what our graduates make us; and Yale and Harvard and Princeton and Cornell are precisely what the students make them, what their graduates stand for. I want you students to feel as you take up this new life work, and you nurses who go out to shoulder responsibilities, that it is a case of

Co-operation and Partnership.

We can not do without you, and you can not get along without us. That being the case, let us work together.

There are only a few ideas which I wish to leave with you to-day. I have given you one—co-operation. The next is responsibility. You are going to be worth in this business not what you say you can do, but what you can really accomplish. One can get nothing from nothing, but one can always get something from something. If you leave this place like a spring that bubbles over, the influence which you will exert will extend and will act and react.

Let me give you another idea. For years so-called physical training, gymnastics, physical culture has been taught under a variety of systems. The system of Dr. Dio Lewis seemed to drop; then came this system and that. In one place the German system failed; in another place the Swedish system failed, and in another place the so-called American system failed. Why? They will continue to fail just as long as the development of the muscular system is made

The Sum of Physical Training.

It is a serious mistake to suppose that what we call the musculature embodies the sum total of physical education. We can go to the barnyard and take a man whose knowledge is bounded by the four walls of the stable, and show the man how to bend the arms upward; how to bend the body forward and backward, and right and left; we can teach that man to climb up a pole or to do certain tricks on the horizontal bar, and he can go before any class of men and women and show these movements and say, "I am a disciple of health." Putting it roughly, that is precisely what has taken place too many times in America; men and women have had the nerve to go out and teach physical training when all they knew

was how to develop a few muscles of the body.

You are fortunate here at this place in having men back of you who offer you opportunities to learn how to develop the physical entity,—the eyes, the teeth, the ears, the nose, the heart, the lungs, and all of the machinery of the body. Here we get away from a little four-walled place and go out into

The Broad Field

of physical education. You should be able to tell in an instant how to strengthen the heart, how to increase the capacity of the lungs, how to wash out the liver with fresh arterial blood, how to quicken the chemical changes in the kidney—in fact, how to handle this remarkable machinery, the most wonderful machinery that exists. That will be your business, and you have opportunities here to learn that. Can you tell what to do for curvature of the spine? Can you diagnose between scoliosis, kyphosis and lordosis?

you how I do it. I skip the rope every morning and every night." She was rather heavy, but she would go out on the back porch and skip the rope twenty or thirty times. Her neighbors thought she was crazy, but she was adopting one of the most rational methods that exists for renewing the youth,—quicken the action of the heart and the lungs by active leg work.

We can bring back to any man or woman an immense amount of vitality that seems to have gone. It is possible for one who is fifty years of age to practically make the body over. It can be done, and in simple, rational, sensible ways. Many a doctor has stood side by side with nurses when they were tired out before they should be, and with the fatigue came that irritability and peevishness that is born of fatigue. That condition reacted instantly upon the patient. I say to you women who are to stand by the side of the sick-bed, keep your strength, keep your youth, keep your vitality; do this purely

women and before children, will exert a tremendous influence, whereas the woman who is sickly and is careless about her personal appearance will not.

Let me close this brief address with this statement: As you think, so will you be; and your thinking is influenced by your environment, your atmosphere and education. If you aim high you will shoot high; if you aim low you will hit the ground. You are with yourselves so much, and you are thinking so much, but what do you think about? Has a rut been formed in your gray matter so that every time you think you think along the same line of thought? Is it vindictive, is it uplifting, is it depressing? Change the character of the thinking at once, if it is depressing, so that as a teacher you will lift up and not push down. I am not giving you a sermon to-day; I am talking business. I have watched my own teachers for twenty-five years, and one woman fails, and one woman succeeds; one woman stands at the very head of her profession, and another



FOLK GAMES

and can you give a treatment, so far as it is possible to give a treatment, for these various conditions? If not, be a little careful about hanging up your shingle. If the extremities are cold, can you bring back warm hands and warm feet, and in a pleasant way? I do not ask you to sugar-coat all of your teaching, but I do believe that if there are two methods of sending the blood to the extremities,

The Pleasant Method

is better than the monotonous method.

I was at Quincy, Mass., last winter, and I met a beautiful woman whose hair was white. I think she was a grandmother; but she was so bright, and so active, and so vivacious. I knew her well enough to ask the question, "By what means do you keep your youth, and how is it that a woman who is certainly older than twenty-five, is so active?" "If you won't laugh," she replied, "I will tell

As a Business Investment.

I say to you who are going out to teach gymnastics, we can not all be doctors of philosophy; we can not all of us be doctors of medicine; but every one of us is a model in some way. And there is one thing that is worth a great deal more to you than you imagine,—that is, to stand well before a class. Learn to carry the body as it should be carried—head erect, chest arched, and hips back; purely as an investment that will pay you.

Do you know how many inches difference there is in the anterior portion of the thorax if the chest is high, and in the anterior portion of the same thorax if the chest is collapsed? Measure the contents of the chest with a full expansion and again when it is collapsed, and you will be surprised at the difference.

It may seem to you that I am discussing superficial topics. After having taught thirty years I know well that the woman who can control her body as she stands before other

woman who had so much before her in the way of hope and promise, drops out. You will be in one class or the other, and, may I use a college expression, and say,

It is Up to You.

There are too few women in physical training to-day who are being felt beyond their own small circles. We want women who can write, women who can speak, and women who know whereof they write and speak. Will you be in that class?

The field which you are entering is without any exception the most important field that exists in education. The ablest man in this Sanitarium can do precisely what his body will let him do, and it happens in this case his body will let him do wonders. The ablest man at my university, at Yale, can do only what his body will let him do, and not one thing more. No matter what your profession, no matter what your trade, no matter

(Continued on page four)

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THE SANE FOURTH

THE latest celebration of the country's natal day appears to have been an unparalleled success in point of sanity, at all events. The first survey of the field shows only thirteen deaths, which, though rather a heavier casualty than was suffered at Bunker Hill, as we recall the statistics of that event, is a marked improvement over the record of any preceding anniversary for probably fifty years.

In Michigan there was not a single death, nor even a fire that could be ascribed to fireworks, which is eloquent testimony that the people are amenable to reason's appeal. The results must encourage one to believe that eventually we shall learn to celebrate sanely, not only in a negative, but in an affirmative way, that is, to have ceremonies or exercises which will have some actual symbolical signification and be a tonic for run-down civic sensibilities.

The celebration in Battle Creek marked an epoch in the city's history. It was the greatest celebration ever "pulled off" here, and yet the sanest. There were parades and aeroplane flights, fireworks and games, but everything was systematically arranged and the four days' homecoming celebrated here in conjunction with the natal day was numerically the best celebration the city ever knew.

CHATS WITH SANITARIUM GUESTS

HON. GEORGE W. WICKERSHAM, attorney-general of the United States: "In the Sanitarium, Battle Creek and Michigan have something that they can justly be proud of. This is certainly a wonderful institution, an institution that surpasses anything else of the kind that I have ever seen; and I've covered considerable ground in my time, too. I have been here only a day, but I do believe that I feel a thousand times better than when I came."

REV. JOSEPH F. X. CLOUTIER, pastor of the Sacred Heart Convent at Albany, N. Y.: "This food is certainly all right. I've heard of protose and yogurt before, but never had the nerve to try it. I now think it's great, and I'm going to take some back

to Albany with me. I've only been here a week, but, do you know, I believe it's agreeing with me. I'm honestly convinced that I'm not the same person who came here a week ago. But, say, how they do go for you in those massage treatments. They nearly took all the wind out of me. A wonderful institution, this. I'm glad I came here for treatment."

VIRGIL CONKLING, prosecuting attorney of Jackson county, Mo., the man who prosecuted Doctor Hyde and his wife for the killing of Col. Swope, the St. Louis millionaire: "I'm beginning to feel fine and am taking in everything that comes along. They'll certainly have me converted into a vegetarian. I was greatly in need of rest and recuperation and also suffering from indigestion. The first week I was here I began to feel myself again."

OPENING OF THE SCHOOL

(Continued from page three)

ter what your occupation, you can go just as far as the physical machinery will let you go, and there you will stop. Therefore, while you are here with Doctor Hastings and his colleagues, put your bodies into such good physical condition that you can depend upon them.

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 topics.

QUESTION. Do you think it is well for one who has excessive acidity to drink a large quantity of water?

ANSWER. Not at meal time. It is a good thing to drink water freely two or three hours after meals, as it dilutes the acid juice and hastens the remnants of food out of the stomach.

Q. Do you recommend cucumbers for all persons?

A. If you have ulcer of the stomach, you ought to avoid things of that kind. If a person's stomach is partly obstructed, he should not eat cucumbers, because they would be likely to be retained in the stomach. Cucumbers must be thoroughly chewed, and they must be crisp and brittle. Never eat cucumbers that are wilted; they must be crisp, so that they can be easily and thoroughly masticated. They should not be pickled, or eaten with vinegar, as that renders them indigestible. They may be taken with a little lemon juice.

Q. What are the best things to eat for one who has chronic inactivity of the bowels and bad digestion?

A. Bran biscuit and granose biscuit are the best forms of bread. If everybody here

would discard white bread entirely, and for bread eat granose biscuit and bran biscuit, they would be wonderfully benefited. These are the best forms of bread and in palatable form. They should be nicely toasted, so as to be crisp. Then another good thing for this condition is malt honey or malt sugar. Malt sugar is slightly laxative, and should be eaten freely. A very good way to take it is with a dish full of flakes of some kind, preferably wheat flakes, heaping on the sugar to the extent of several spoonfuls. Malt sugar is not like ordinary sugar and may be used freely. It is simply cereals already digested and ready to be immediately absorbed. A little cream should be added. Do not try to dissolve it in the cream, but eat it as a cereal, as you would flakes. Another thing that is important for persons suffering from inactivity of the bowels is to take acids and fats, which are both laxative. If a person has acid dyspepsia, he should take fats rather than acids.

Q. What can be done to relieve pain in the head in neurasthenia?

A. Massage gives wonderful relief, and sponging with very hot water. Also bathing the eyes with very hot or very cold water. But the best thing of all is to cure the headache before you get it. The cause is poisons absorbed from the colon. A person subject to these headaches should drink a gallon of water every day. Drink a glassful every fifteen or twenty minutes if necessary. The proper times is between meals. This will rinse the poisons out; but it is necessary to have the nerve tone restored and the nerve sensibility removed by a course of proper treatment. A low-protein diet will in time cure most cases of neurasthenia.

Q. If one is very sleepy after dinner, do you advise sleeping, or fighting it off?

A. The best thing is to eat a little less heartily, then lie down. If you must sleep, do so. Sleeping a few minutes does not do any particular harm; but a long sleep is objectionable because the stomach does not empty itself properly while one is asleep. The muscular action of the stomach is diminished, so the food stays in the stomach too long, and the accumulation of gastric juice is too great.

Q. Please say a few words about diabetes. Can Irish potatoes be eaten by one having this disease?

A. We do not know very much about diabetes, but we are learning some more things. One of the most important things in diabetes is to eat some starch; to discard starch altogether and live on an excessive meat diet is a very great mistake. A man came here a short time ago who had been on a meat diet for two or three months, and he was still eliminating a large amount of sugar every day. As a result of the meat diet he had autointoxication to a terrible degree. He was given no meat while he was here, and when he left here, the sugar had entirely disappeared and he was very happy. Meat is the worst possible diet for a person suffering from diabetes—far worse than a starch diet. When I was in Boston a short time ago, an eminent physiologist who has devoted several

years to the study of diabetes said to me that it is a great deal better for a diabetic to eat anything he wants to eat, and pay no attention at all to his diet, than it is to be put on a meat diet. When starch is withheld, the patient loses his glycogen, which is made from starch, and when the glycogen is gone, the energy is gone, and the power to live is gone, because the life processes are sustained by energy. Certain starches, as VonNorden has shown, are more easily digestible than others. In this disease usually the most easily digested form of starch is oatmeal, next the banana, next the potato. Some people find potato the best. We have a patient in the house now who has an enormous increase of sugar on the oatmeal diet, but on a diet of bananas the sugar goes down immediately. This patient takes a green diet of all sorts of fresh vegetables, adding all the bananas she wants to eat; on this diet the sugar came down ninety grams in two days. We have here another patient who does best on a potato diet. It is a good thing to make a change. Every person suffering from diabetes should be under the watchful care of a careful, intelligent and scientific physician. It is only in that way that the patient can be trained gradually to eat more and more starch, which is the thing that the diabetic should be trying to do. He should be seeking all the while to find starch he can take, and to take more and more, because starch is the one thing that can prolong and save his life.

Q. I am eating to regain lost weight. More than 2,400 calories a day cause my bowels to cease their activity. Please tell me how I may eat enough to bring my weight to normal.

A. Take half a tumblerful of malt honey just before you go to bed at night. Take a quarter of a tumblerful with a tumbler of water, then another quarter with another tumblerful of water, and drink it down, which will not be a difficult task. That will add to your bill of fare a little more than 300 calories and every particle of it will be absorbed. It will aid the activity of the bowels and will do no harm in any way.

Q. A friend was suffering terribly from a fracture in the ankle joint, and from badly strained ligaments. He seemed to feel that cold applications would bring relief, but these were not allowed. What would you advise in such a case?

A. There is nothing better for a sprain when it first occurs than very cold applications, which give relief from pain, and that it is instinctively called for is an indication that it is a good thing. The natural instincts of the body are really, as a rule, the best guides when we are using natural remedies.

Q. What do you think of oatmeal and rice and cream and sugar for one whose bowels are inactive?

A. Very bad. Rice has no laxative effect, and oatmeal is very constipating. It forms hard, tough masses which are retained in the colon, so it is a very unwholesome diet for persons suffering from constipation. When I was in Berlin some time ago, making observations with different specialists, I visited the clinic of the great Doctor Ewald, who

was supposed to be the greatest gastric specialist in the world, and after spending a few days there I said to Professor Kuttner, his associate, "What is the best diet for a person suffering from constipation?" He said, "The first thing is what not to eat—no oatmeal." "Why not?" "It is exceedingly constipating," he said. I visited after-

THE NORMAL SCHOOL

(Continued from page one)

vacation period with some useful and entertaining form of study and practice. The course embraces a large proportion of outdoor work, and nearly all the class work is being done in the open air.



CANOEING

ward a rival of Professor Ewald, one of the other great specialists in the world, and he said the same thing—no oatmeal. It is universally condemned on account of its constipating tendency.

A Large and Able Faculty

has been assembled, consisting of teachers from the local school supplemented by some of the ablest teachers from other schools and universities.

COUPON

Send Us the Names of interested friends who you know would like to have the in-

formation contained in the **BATTLE CREEK IDEA**, and we will send them free of charge a few sample copies. Simply write their names and addresses in the blank spaces below, cut out the coupon and mail to us, and we will send the papers.

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For almost half a century the work of the Battle Creek Sanitarium has been exemplified in many forms. Men high up in their professions have organized departments and taught the people that which is the most beneficial for their general health and well-being. For more than thirty years scientific physical culture has been an important factor in the work of this institution. In fact, this institution may fairly claim to have been

One of the Pioneer Centers

in which gymnastics as a hygienic and curative measure have been promoted and developed. It is generally recognized that certain lines of research in anthropometry have been more fully developed here than elsewhere, and also that the system conducted here has contributed many facts and methods of importance in scientific value to the therapeutics of bodily movements, both active and passive.

You may ask yourself, "Where shall I spend my vacation?" or, "What shall I do during my vacation for the betterment of my health?"

Let the Battle Creek Normal School of Physical Education answer your question. It will say, "Come to Battle Creek and enjoy the 'Battle Creek Sanitarium System.'"

Every facility for teaching the art and science of pure athletics is to be found here. What will be one of the finest and largest outdoor gymnasiums in America is under course of construction. Then, too, there is the indoor gymnasium with all its modern equipment for the development of the human body.

This training school is organized in harmony with the general plan which has been in use for many years at the Sanitarium. The student is educated in

Scientific Health Development

and taught the art of maintaining a high degree of vital efficiency.

The various courses listed are taught by means of lectures, demonstrations and laboratory work, and the student is given the opportunity to perform many of the tests studied. By special arrangement, the classrooms and laboratories previously used by the American Medical Missionary College are open for the didactic and laboratory work of the School of Physical Education.

An experienced faculty make "life worth while" for the students and teach them to enjoy their studies to such an extent that to the student it is making play out of work. Besides the regular school work as outlined in the curriculum, the student may attend

Lectures and Educational Entertainments, of which there are many, and which in themselves are equivalent to a Chautauqua course of lectures.

The opening exercises of the summer school were held on July 3, at which time the work started off in a most gratifying manner with a class of about fifty in attendance gathered from the following States: Tennessee, Illinois, Ohio, Minnesota, Michigan, Pennsylvania, California, Arkansas, Missouri, Texas, Wisconsin, New York, Iowa, Massachusetts, Washington, District of Columbia, West Virginia, Kansas, New Jersey; and also from Canada, Russia, Japan, and Denmark. The number of students will reach seventy-five or more by the middle of the term, August 1.

This Wide Range

shows at once that Sanitarium principles are exerting an attractive power upon a large portion of the world. Dr. W. G. Anderson, physical director of Yale University, was here and addressed both the school and the Sanitarium family on different occasions. We are able to present an abstract of his address at the opening of the term, and next week we hope to present an address the Doctor gave before the Sanitarium guests.

It is not too late even now to obtain most

of the benefits of this summer term; and any who are interested in the subject of physical development and culture will do well to write for circulars. Address the dean of the School, Wm. W. Hastings, Ph. D., Sanitarium, Battle Creek, Michigan.


ARRIVALS

The list of arrivals at the Battle Creek Sanitarium for the week ending July 9 is as follows: J. C. Snyder, Mich.; W. E. Aiken, New York City; Mrs. Will Smith and C. Alton Smith, Mich.; Jno. C. Martin, Ga.; Smith Blair, W. Va.; R. Ambler, Tenn.; Mrs. A. M. Kaufman, Tex.; Mrs. N. Friedman and son, Ia.; J. Lehman and I. Lehman, and Mrs. C. Lehman, New York City; A. G. Adams, Africa; Fanny Barr, O.; T. C. White, New York City; P. P. Shelby and Helen G. Shelby, O.; W. W. Wilson, Ind.; M. W. Davis, W. Va.; N. S. Bradley, Mich.; A. A. Kane, O.; Mrs. H. Frank and Mrs. C. Meyers, Ark.; John M. Bishop, New York City; Dr. and Mrs. Ravdin, Ind.; Jas. G. Hunt, N. Y.; Mrs. B. L. Davis, N. Y.; Jno. B. Bain, O.; Mrs. Ernie Nietern, Ky.; W. R. Graham and wife, Tex.; W. Hughes and wife, Kans.; F. J. Franklin and wife, Cleveland; Eugene Ward, Mich.; G. E. Wagner

Sanitarium Postcards

A series of beautiful illustrations of familiar features and scenes about the Sanitarium, taken by our own artist. Select from the following list. Prices, two for five cents, one dozen for twenty-five cents, sent to any address. Order of the Sanitarium, Battle Creek, Mich. They may be ordered either by number or title.

- 1 Bird's-eye View Sanitarium.
- 2 Sanitarium in Winter.
- 3 Gents' Bath.
- 4 Gymnastic Drill.
- 5 A Winter Night Scene.
- 6 A Winter Night Scene.
- 7 The Front Entrance.
- 8 Receiving Physician's Office.
- 9 Phototherapy Department.
- 10 Blood Test Laboratory.
- 11 Ladies' Bathroom.
- 12 Vegetable Greenhouse.
- 13 Corner in Gastric Laboratory.
- 14 X-Ray Laboratory.
- 15 Gymnasium.
- 16 Front Entrance of the Sanitarium.
- 17 Main Building from the College.
- 18 East Hall.
- 19 Palm Garden.
- 20 In the Greenhouse.
- 21 The Main Parlor.
- 22 The Main Dining-room.
- 23 West Hall.
- 24 Northern View of Sanitarium.
- 25 Cooking School.
- 26 Nurses at Chapel Exercises Easter Morning.
- 27 Universal Strength Test.
- 28 Breathing Exercises.
- 29 Breathing Exercises.
- 30 Breathing Exercises.
- 31 Breathing Exercises.
- 32 The Kitchen.
- 33 Palm Garden Pharmacy.
- 34 Lady Nurses' Dormitory.
- 35 Bath-room Treatments.
- 36 College Building.
- 37 View of the Rear Lawn.
- 38 View from Front Entrance.
- 39 Southern View of Sanitarium.
- 40 Ladies' Indoor Swimming Pool.
- 41 Nurses' Graduating Class, 1910.
- 42 Gymnasium and Bath-rooms.
- 43 Nurses' Graduating Class, 1911.
- 44 Main Building (from College Lawn).
- 101 Sanitarium Annex.
- 102 Sanitarium Annex, from South Lawn.
- 103 The Annex, South Lawn.
- 104 Sanitarium Annex, from Southeast Lawn.
- 105 Sanitarium Annex, North View.
- 106 Sanitarium Annex, Southeast View.



Keep the Health You Have Regain Your Lost Health

Two very significant words—*keep* and *regain*. At the bottom of every success or failure lies the question of **HEALTH**.

No one ever has perfect *health*; but every one knows, vaguely, that he feels better, and can work better, on some days than he can on others. Such a degree of *Health* brings *Efficiency*, and in these days of competitive struggle *Efficiency* spells *Success*. When you know how to live, then, and then only, will your body be *efficient*. Our booklet


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Sent to you free for the asking will explain our methods of keeping the body *efficient*. Cut out the blank on the left, fill in the proper places, and mail to us.

Name..... Ask us any questions you wish about your condition, and they will be answered free of cost.

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BATTLE CREEK, MICH.



and wife, and M. L. Rothschild, Chicago; Mrs. J. B. Chilton and Wm. Chilton, Tex.; R. P. Boyer, Mo.; C. W. Tatlor and wife, Minn.; Jas. S. Hall and wife, and Misses Emma and Edith Hall, Tenn.; John H. Pope and wife, Tex.; Mrs. Lilly W. Smith, Ill.; Mrs. A. S. Steele, Tenn.; Wm. M. Scholl, Chicago; R. A. Pickens, Ark.; H. S. Chapman, Ill.; Ever Nelson, Ia.; Geo. E. Franks, Ill.; Mrs. L. S. Davis, Pittsburg; Chas. Wolohan, Mich.; Annie M. Wells, China; C. H. Meshel and wife, Brooklyn; G. W. Parker, Ill.; Mrs. Melvin Menges, Ind.; Lewis Liner, Mich.; Rev. Joseph F. Cloutier, N. Y.; G. L. Beeker, Utah; Monroe H. Morrow, Mich.; Mrs. T. E. Sharp, Tenn.; Mrs. Wm. E. Hill, Mo.; C. C. Sweet, Mich.; Mrs. G. M. Reynolds and Mrs. Chas. L. Powell, Ill.; Ray H. Watson, Mich.; Mrs. J. E. DeLonzio and J. E. DeLonzio, Ariz.; Harley B. Gibbs, Cleveland; Mrs. A. K. Mordue, Chicago; J. Carter, Ga.; E. F. Randolph, Ill.; B. B. Beecher and Edw. Beecher, Tenn.; R. C. Phillips and wife, and Mrs. Edson, O.; A. C. Anson, Chicago; E. Haviland, Fla.; Mrs. H. P. Wiches, N. Y.; G. E. H. Harmon, Md.; C. W. Savage, Baltimore; Claude H. Estes and wife, Mich.; Elizabeth Schermerhorn, Mich.; Mrs. Herman May, Tex.; Mrs. Norman H. Meyr, Ala.; Mrs. Lee Bivius and Julian Bivius, Tex.; Celia Schlacht and D. Schlacht, Chicago; Hon. Geo. W. Wickersham, New York City; Hon. Chas. E. Townsend, Mich.; F. Bothwell, N. Y.; Mrs. E. E. Fox, Toronto; Julius D. Richardson, Tenn.; Ed. Firestone and wife, O.; C. H. Byrn, Tenn.; Mrs. C. F. Edwards, W. Va.; Wm. Burtless, Mich.; Mrs. Rose D. Moore and Lynn A. Moore, O.; J. H. Sykes, Okla.;

T. S. James, wife and daughter, Ark.; C. P. A. Clouth, Kansas City; Archy Campbell and D. M. Campbell, Ind.; Mrs. Will C. Gillian, Ark.; Fred M. Bush, Miss.; Joseph Haag and Rosa Haag, Mo.; Mrs. Flo Nelson and son, Ia.; J. W. Kirkland, Los Angeles; W. B. Brooks, Seattle; Mr. and Mrs. T. P. Moody, Tex.; Wm. Milton Coutts, Tenn.; C. C. Rhodes, Ky.; Mr. Swinson and wife, Kans.; Mrs. Samuel Schlosser, Ind.; Mrs. J. S. Childens, Tenn.; J. J. Newberry, New York City; T. S. Rogerson, W. Va.; W. D. Cheadle, O.; Pearl Reynolds, Ill.; Perry M. Williams, Ariz.; Mr. and Mrs. J. D. Houston and Miss Ada Carlton, Tex.; Marie M. Lowe, Tenn.; Marguerite Hubbard, O.; J. A. Snearer, Pittsburg; J. C. Clutts, O.; Mrs. J. W. Beattie and Miss Dorothy M. Beattie, Ind.; Rev. R. F. Tredway, wife and son, La.; Ben Wolf and wife and Mrs. M. J. Seisel, Ark.; Miss Mabel K. Griggs, Pa.; J. T. McMurray, N. J.; Mrs. Mary C. Mead, Brooklyn; Y. N. Boody, Des Moines; Mrs. F. W. Ashton, N. Y.; Mrs. W. M. Terry, Ia.; Harriett M. Esdon, Kans.; John McAuliffe, Mich.; Mr. and Mrs. C. A. Bushnell, Wash.; T. P. Matthews and wife, Mrs. F. L. Rieke and F. L. Rieke, Ill.; C. K. Shaw, Pa.; H. E. Tenney, Ill.; Mrs. J. D. Richardson, Miss Ida Richardson and Miss Lucile Byrn, Tenn.; Mrs. W. A. Gareher, Ky.; Mrs. Wm. Redd, Ala.; Mrs. John Bromhead, B. H. Bromhead and E. B. Bromhead, Chicago; L. F. Spaulding, Calif.; Chas. Newman, Ala.; L. E. Armstrong, Ia.; Mrs. L. S. Matthews, Mo.; Mrs. P. O. Beard, Tex.; M. A. Henderson and wife, and Miss Eddie Lee Byrd, Miss.; Mrs. Ella R. Shaw and Mrs. A. H. Kippenberg, Mo.; Andrew L. Cald-

well, wife and child, and Raymond F. Parkinson, Ill.; Jas. Nesbitt and Geo. D. Schermerhorn, Mich.; Martha G. Metzger, N. Y.; Meta F. Rupp, Mich.; B. F. Trembley, Detroit; Harry E. Chase, Mich.; Edgar A. Bancroft, Chicago; Frank O. Lowden, Ill.; Mrs. T. M. Flannigan, E. W. Dollman and G. M. Flannigan, Mich.; J. E. Williams and L. O. Williams, Pittsburg; H. H. Steinmetz and Mrs. Edith Steinmetz, Philippines; W. B. Robert, Miss.; Carl Lee and wife, Ark.

News and Personals

Frank O. Lowden, an Oregon, Ill., attorney, is here for treatment.

C. A. Bushnell, a prominent photographer of Washington, D. C., is among this week's guests. Mrs. Bushnell is with him.

Ben Wolf, a Fort Smith, Ark., merchant, and wife are among this week's guests, reaping the benefit of professional knowledge.

Miss Mabel H. Burr, a missionary, of Terriet, Switzerland, and mother, Mrs. M. L. Hayden, Catskill, N. Y., are guests for a couple of weeks.

William F. McKnight and wife, of Grand Rapids, Mich., are here for recuperation. Mr. McKnight is well known in Battle Creek. He is a prominent lawyer of Grand Rapids.

SCHOOL of DOMESTIC SCIENCE



A CLASS DEMONSTRATION

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.

Mrs. J. S. Childers, of Missouri, was here ten years ago and so benefited by the treatment that in company with her son, Ben Childers, she returned again this week.

Doctor Kellogg treated the missionaries from various parts of the uncivilized world who are stopping at the Sanitarium, to a pleasant spin about the city on Saturday in his private motor car.

One year ago the treatments at the Sanitarium so benefited Edward A. Beecher, of Memphis, Tenn., that he is again among the Southern guests. His father, B. C. Beecher, accompanied him here.

Traveling salesmen are in evidence this week for recuperation. Among them are T. P. Moody, of Greenville, Texas; J. Carter, Gainesville, Ga.; and J. E. Williams, of Pittsburg. Mrs. T. P. Moody is here also.

G. A. Boody and wife, of Des Moines, Ia., think there is no place quite as good as the Battle Creek Sanitarium. They are both enthusiastic over the treatment received. Mr. Boody is a wholesale and retail dry goods merchant.

Each week invariably sees students from various colleges all over the United States among the Sanitarium guests. Among those this week is C. K. Shaw, a Harvard student whose home is in Chester, N. Y. His mother, Mrs. C. J. Shaw, is with him.

According to Charles Newman, of Birmingham, Ala., there is no place like the Sanitarium. He has been a visitor here a number of times and is back again for a visit of a couple of weeks' duration. Mr. Newman is a retired dry goods merchant.

"Pop" Anson, the great baseball artist and father of the game, whose writings are to be read weekly in the leading papers of the United States, brought his mother to the institution on Thursday for a couple of weeks' treatment. "Pop" thinks the "San" is just "it."

The eminent Dr. G. E. H. Harmon, of Cambridge, Maryland, formerly surgeon-general of the United States Navy, arrived at the Sanitarium on Wednesday to take a few weeks' rest. He was recommended to this institution by Surgeon-General Stokes, U. S. N.

Among our more prominent guests this week is Rev. Joseph F. X. Cloutier, pastor of the Sacred Heart convent at Albany, N. Y., and a prominent ecclesiastical dignitary in New York State. Father Cloutier is a French-Canadian, and was born near Montreal, Can.

President Parkins, of the Illinois State Normal School, has such a high opinion of the Sanitarium that he has sent his son Raymond Parkins, of Carbondale, Ill., to spend a couple of weeks. Judge Caldwell, of the same city, was among those who recommended the institution.

We are pleased to have with us once more Dr. and Mrs. H. H. Steinmetz, who have served for several years in the Philippines as medical missionaries. Doctor Steinmetz is engaged in the lecture field in behalf of missions, while his wife will remain with us for rest and treatment.

The first meal at the dining-room of the Annex was served Thursday, July 6, at noon. Since then regular meals are provided for the guests there, who number at the present time about one hundred and fifty. The patients are much pleased with their location there, and it is indeed a quiet and refined place.

While so far this week the list of active and retired farmers is not quite up to that of last week, the list continues to grow and promises if anything to numerically surpass that of last week. Among the tillers of the soil registered so far this week are James Nesbitt, Schoolcraft, Mich., and J. E. McAuliffe, Albion, Mich.

The number of missionaries at the Sanitarium is increasing. Among the new arrivals this week are Miss Elizabeth B. Campbell, of Benguela Angola, West Central Africa, and her mother, Mrs. Agnes Campbell, of Calgary, Alberta, Can.; and Miss Annie M. Wells, missionary to China, who was recommended to the institution by Doctor McCartney, of China. Her former home was in Willow Hill, Ill.

Glassblowers die comparatively young, it is said. J. A. Sweaver, of Pittsburg, Pa., started from the bottom of the ladder and reached the lucrative position of superintendent of a large glass plant in Pittsburg. But that was far enough. He wished to live the allotted time, and so has retired, and is one of the happy family at the Sanitarium. His daughter, Mrs. John Christy, also of Pittsburg, is with him.

Hon. George W. Wickersham, attorney-general of the United States, was a visitor for a few days this week. He attended the annual meeting of the Michigan Bar Association. Mr. Wickersham was accompanied by Hon. Chas. E. Townsend, U. S. Senator from Michigan, whose home is at Jackson, and who has visited the Sanitarium on previous occasions. Mr. Townsend already approved of Sanitarium ways and took great pleasure in introducing the Attorney General to the same.

Battle Creek was treated to a civic celebration of Independence day that extended over three days, and was remarkable for its completeness and enjoyable features as well as for the absence of disagreeable demonstrations and dangerous pastimes. One of the principal features was a parade representing the various industrial and commercial enterprises of our city. One of the floats illustrating the Sanitarium was a diminutive affair drawn by a pair of Shetland ponies and bearing pictures of the beginnings of the work. The little wooden building was shown with its 2,100 feet of floor space, its nine

guest rooms, and nine employees, and an annual patronage of 106. Following this was a fine exhibit showing the present Main Building and the Annex and a floor space of 628,400 square feet, or nearly fifteen acres, and 1,020 rooms. The annual number of guests is 9,126, and the number of employees at present is 1,125.

Prof. G. L. Imes, of Tuskegee Institute, addressed a large audience on the Sanitarium lawn on the topic, "An Inside View of Tuskegee." The address was delivered in a scholarly manner and was replete with information concerning the plans and the methods pursued in the famous school for colored students now numbering over 1,700. Material of all sorts and grades is gathered up from all parts of the South and from Cuba and Africa. Much of it is in the crudest possible state. The idea of the dignity of honest labor is the principal topic of the curriculum. Only the most practical lines of industry are taught, and only those sciences that find their application in the practical life of useful employment are included in the teachings of the Institute. Problems in mathematics are drawn from the flocks and herds, from the buildings, and the repair shops. Higher mathematics are taught only in connection with those branches of industry that call for them. Language in all its branches is taught only from the utilitarian point of view. Professor Imes is here to take in such portions of the Battle Creek system as he sees will be of benefit to Tuskegee students, and expects to return and formulate them into a system of instruction that will harmonize with the other work being done there.

Every State in the Union is represented this week by women. They are here from Texas, Alabama, Florida, Georgia, Vermont, Virginia, Ohio, Indiana, Illinois, Maryland, Louisiana, Michigan, Kentucky and District of Columbia. Thus it may be seen that the reputation of this largest institution of its kind in the world has reached every portion and corner of this great country. Among these guests this week are Mrs. Anna L. Friedlander, wife of a well-known New York City attorney; Misses Ora and Sadie Lovelace, teachers, of Sullivan, Ind.; Mrs. Jennie McDonald, Oklahoma City, Okla.; Mrs. Barbara Rieke, Reddick, Ill.; Mrs. Mary C. Mead, Brooklyn, N. Y.; Mrs. J. S. Childers, Missouri; Mrs. Margie Treadway, Mansfield, La.; Mrs. M. J. Seisel, Little Rock, Ark.; Mrs. Mary Levy, Houston, Texas; Mrs. Ada Schlosser, Plymouth, Ind.; Miss Celia Schlacht, Chicago; Miss Sarah L. Sheldon, Lindenville, Vt.; Miss Susan Baxter, Nashville, Tenn.; Mrs. Sallie Hill, Keytesville, Mo.; Mrs. Emily Haviland, Lake Helen, Fla.; Mrs. Ermine Withrow, Midway, Ky.; Mrs. Clara B. Chilton, Comanche, Texas; Mrs. Ada Chitts, Wellston, Ohio; Mrs. Fanny J. Sutton, South Haven, Minn.; Mrs. Sarah L. Draiss, manager Pennsylvania College for Women, Pittsburg, Pa.; Mrs. Cecelia Myers, Helen, Ark.; Mrs. F. T. Halstead, Atlanta, Ga.; Mrs. Jessa M. Hill, Cambridge, Mass.; Mrs. Clara Daylor, Montreal, Can.; Miss Carrie Ashton, Grand Island, Neb.

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SOME METHODS OF REJUVENATION

A Lecture at the Sanitarium Gymnasium, by Dr. Wm. G. Anderson, Physical Director of Yale University—Introduced by J. H. Kellogg, M. D.

DOCTOR KELLOGG: We look to our great universities for light and knowledge and inspiration. In these days when the necessity

HYDROTHERAPY IN PHYSIOLOGIC MEDICINE

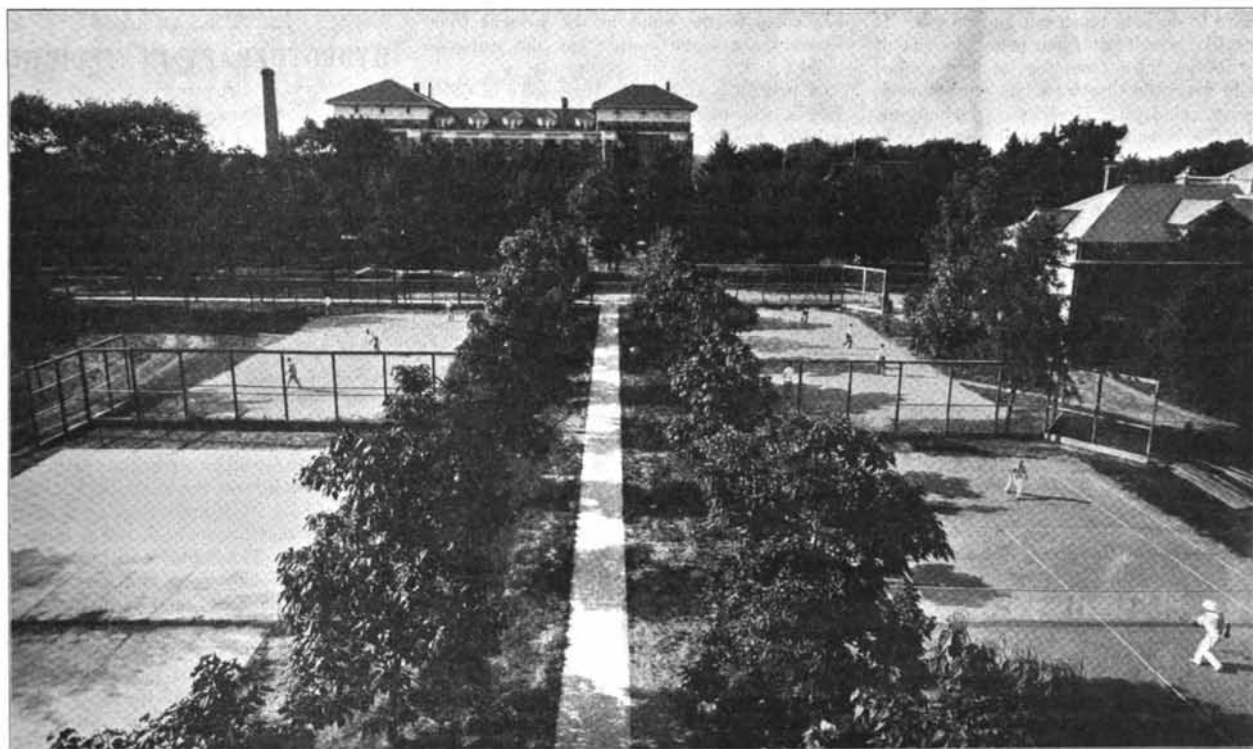
The Philosophy and Practice of Hydrotherapy or Water-Cure in the Battle Creek Sanitarium

HYDROTHERAPY is but another and scientific name for the homely "water-cure," with which it is entirely synonymous. Curing the sick with water? Yes; and no. We have

NECESSITY FOR NATIONAL HEALTH REFORM

Doctor Kellogg Convinces His Patients of the Cheapness of Health—Urges More Attention to Family Pedigrees, and the Establishment of an Aristocracy of Health

I AM going to talk to you on the same old theme—the necessity for a decided reforma-



THE TENNIS COURTS—WHERE THE PATIENTS GET THEIR RECREATION

for combating race degeneracy is coming to be generally recognized by intelligent observers, it is most gratifying to note that some of our universities are giving much encouragement and help to the movement for
(Continued on page three)

already stated that the only healing power is that which inheres in the body itself; but extraneous agencies may be employed to assist the body in various ways, by nourishment and stimulation. Water is one of the
(Continued on page two)

tion in our health. The primitive man was very simple in his habits and required but very little to supply his needs. Did it ever occur to you how much we pay for luxuries, and how little the real necessities of life cost us? The statement was made some time

ago, when thousands of people were dying from famine in China, that

One Cent a Day for Each

would save the lives of those people. I was told by a missionary from Northern India, whose field was on the border of Thibet, that the regular wages there are four cents a day for a man, three cents for a woman, and two cents for a boy; and those people are able, on those wages, to provide themselves with the necessities of life. When I was in Mexico some years ago, I found Mexicans that were supporting large families on sixteen cents a day.

The statement was made by Mr. Hill that it was not the high cost of living that was troubling us, but the cost of high living—the large amount of money we expend for unnecessary things. People sometimes pay three dollars for a hotel dinner when five cents would cover the cost of all the actual nourishment they get out of it; it consists mostly of things that are unwholesome and injurious. It does not cost very much to live, but we are paying a great deal for getting sick and dying. We pay a great deal for disease, but very little for health. Health is

The Cheapest Thing in the World.

When once lost it is hard to regain and has to be wooed for a long time; but original health is very cheap. The food we eat, the air we breathe, the water we drink, communicate health to us. If we want health, all we have to do is to reach out and take it. It hangs like ripe fruit from every bough; it flows in the juice from the luscious grape; it is in every fleeting wave, in every breeze, in every raindrop. Health is all about us, the trouble is we despise it until we are bankrupt. You come to the Sanitarium ready to lay aside your wrong habits of life, only because you do not want to die just yet.

As a race we are rapidly going down hill because of our wrong habits. The birth-rate has diminished in an astonishing degree. The reason for this is that we have departed from the normal course of life. When any species of animal departs from the normal course of life, the very first indication of it is

The Diminution of the Birth-Rate,

—of the reproductivity of that race. The reproductive function can be dispensed with at less expense and injury to the individual than any other function, because it is not necessary to the life of the individual, but provides only for the life of the race; so it is the first thing that is sacrificed. The lowering of the rate of reproduction is the first evidence of the decline of the vigor and vitality of a race.

Some interesting experiments made within the last ten years point very decidedly in a certain direction. Doctor Watson, of Edinburgh, has made an extensive study of the influence of a flesh diet upon the lower animals. Rats, mice, and chickens were fed on flesh, and the very first thing noticed was that the mice lost the power to nurse their young. There was a degeneration of the mammary glands, followed by a degeneration of the other reproductive organs, so that in a short time the mice and rats became sterile. Doctor Watson drew from his ex-

periments the conclusion that meat-eating is one of the causes of the increasing sterility of the English people; because he found that wherever the consumption of flesh food had increased, the birth-rate had decreased in just about the same proportion. This certainly is something to consider, though it can not be said to be absolutely proved.

Not only is the birth-rate diminishing, but women are losing the capacity to care for their young, and are becoming incompetent mothers. A census recently taken in Connecticut showed that in one of the large cities of that state three-fourths of all the mothers did not nurse their children, most of them because they could not. In Ireland it was testified by prominent physicians and sociologists before the internal departmental committee appointed by the British Parliament to investigate the causes of race deterioration, that in certain parts of the country not more than one in eight of the mothers were nursing their children.

Now, see what an enormous loss that entails. Only seven per cent of the babies that are nursed die during the first year of life, while fifty per cent of the babies that are bottle-fed die in the first year. Half of the bottle-fed babies die before they are a year old. Therefore when a mother decides that for the sake of convenience she will not nurse her child, she deliberately decides to take away half of the child's chance for life. Scores of thousands of infants' lives are sacrificed every year because the mothers are unable or unwilling to nurse them; and it has come to the point at the present time where the average mother can not nurse a child.

A professor at Berkely University in California, who has been making a study of this subject, has become convinced that

A New Variety of the Human Race

is being developed. He calls attention to the fact that among ants and bees there is a worker class—a neuter class which exists solely to work. This neuter class is found in most of the animals that develop the social instinct. Among human beings, he tells us, there is a new class developing, a class of women who, being incompetent for motherhood, are to become the workers of society. On this hypothesis he explains the suffragette movement and various other movements among women reaching out for activities beyond the home circle; he regards it as a biological evolution necessary for the development of the race. It is very plain that women are becoming incompetent for motherhood; this is, however, a degeneration rather than an evolution, and is undesirable rather than desirable.

We pay an enormous penalty for the violation of Nature's laws in the millions that are dying unnecessarily. If the present generation were as healthy as the last generation, there would be 350,000 fewer deaths in this country annually than there are. Degenerative diseases are developing among us at a tremendous rate. Insanity is increasing at the rate of three hundred per cent in fifty years. Rheumatism also is increasing, and the world is developing a variety of people especially prone to this disease. There is also the consumptive variety, small-chested people, and disease of the lungs is becoming

more and more common. We are developing pathological, defective varieties of the human race. The diseases we develop by our wrong habits of life do not stop with ourselves, but are handed down to succeeding generations.

Intermarriages are going on without the slightest reference to eugenics, and the result is that disease is being propagated. How strange it is that we do not apply common-sense principles of hygiene to ourselves when we apply them to our horses, pigs, cattle, chickens, and everything else. A man who was visiting at the home of a friend noticed that his friend had four beautiful dogs and a couple of splendid boys. He observed that his friend gave his personal attention to the four dogs, but left the boys to the care of a tutor. He asked him, "How is it that you give your own attention to your dogs, and hire a tutor for your boys?" "Oh," he replied, "my dogs have a pedigree."

It would be a good thing if we gave

More Attention to Family Pedigrees.

The time will come when we shall have an aristocracy that will beat all the blue-blooded aristocracies of Europe. We shall have an aristocracy of health, and no young woman will marry a man without knowing something about his health and ancestry. A young man will inquire into the pedigree of the woman he marries and find out what is likely to come along that line into the family. The time will certainly come when it will be illegal for marriages to be contracted without such an inquiry.

HYDROTHERAPY IN MEDICINE

(Continued from page one)

most effectual and versatile of all therapeutic agencies. It is useful in both nourishment and stimulation. Three-fourths of the body, taken together, is water. The various fluids and many of the soft tissues are very largely composed of water, which serves as a diluent and a depurant. The body depends upon a supply of water that is more constant than of any substance except air. Water is essential as a cleansing agent, to clear away accumulations and effete matter both on the interior and exterior of the body.

The Reflex Action

But in therapeutics, or in the treatment of diseased conditions, the most important use of water is in its reflex action, as applied to the body either hot or cold, either interiorly or exteriorly. The influence of heat and cold upon the various organs and tissues of the body is very marked; and when these influences are understood they may be utilized very effectively in producing desired modifications of almost any of the morbid or even the normal conditions of the body. Water is perhaps the very best medium for conveying these influences. It is not that the water contains any wonderful curative quality beyond its legitimate uses as already mentioned, but water absorbs heat and cold very readily and imparts them just as readily. If one wishes to convey heat from a fire to a human body, one can find no more convenient medium for such conveyance than water. If it is necessary to impart to some portion of the body a special degree of cool-

ness, nothing is so available as a piece of ice. In its use in this capacity water is employed for controlling the circulation of the blood and for modifying nervous conditions. It is a stimulant or a sedative, just as may be required, and its offices differ with different modes of application. The degree of heat or cold and the length of the applications control the effects to be produced.

As a general rule cold is a depressor, and heat is a stimulant. But by varying the length of the applications these effects may be actually reversed, so that heat becomes a depressant and cold becomes a stimulant. A short, sharp application of cold is an active stimulant, while a prolonged application of cold acts to depress nervous activity. A fever may be reduced by either cold or hot water, but the philosophy of the use of the water must be clearly understood, or wrong results may be produced. The impression that anybody can give a bath is all right so far as giving the bath is concerned, but to

full bath, the shower, and the spray, together with local applications of hot or cold water to various parts of the body. Cloths and flannels and sheets are generally used for this purpose. For coolness, either cold water or ice may be used.

Swimming

Another form of water application much in use at the Sanitarium is the swimming bath. Swimming is prescribed by physicians, both for the physiological effects of the immersion in water, and also as an admirable means of muscular exercise. Four large swimming pools furnish to the Sanitarium patrons fine opportunities for this sort of treatment. All water treatments are administered under the immediate direction of a physician. The patient is not expected to go to the treatment rooms and prescribe his own baths. The doctor has an intelligent aim in view and each treatment has a definite

METHODS OF REJUVENATION

(Continued from page one)

better living. The influence of the work of Professor Chittenden, Professor Fisher, and Doctor Anderson, all of Yale University, has been of inestimable service in the promotion of this movement. This is especially true of the work of Doctor Anderson, whose influence is becoming not only national but international. We are glad to extend a hearty greeting to Doctor Anderson, who is generally recognized as standing at the head of his profession in this country.

DOCTOR ANDERSON: I am thankful for this kind introduction, and am frank to say that if Doctor Kellogg looks to the universities for light and knowledge, the universities look to the Battle Creek Sanitarium to show us how a sick and prematurely old man may become young again by correcting his habits. I came here three years ago to investigate.



THE PARLOR IN THE NEW SANITARIUM ANNEX

conclude that any ignoramus is qualified to administer water as a remedy for sickness is a delusion that is attended frequently with serious consequences.

Methods of Application

There are in use at the Battle Creek Sanitarium not less than two hundred different methods in which water is used in treating the sick. Let it not be supposed that any specific medical qualities inhere in the water. It is not at all necessary to have some bad-smelling water impregnated with sulphur or iron, or other minerals. Pure soft water, the purer the better, is what is required. The most common forms of the bath are those most familiar in common use, such as the

object to be accomplished, and the treatment must be carefully and skillfully administered in order to have the desired effect. The bathroom attendants are skilled in their work and are held accountable for the results of their treatments, which are sure to produce definite results when properly given.

In the use of water for controlling disease no bad effects are produced. The system is left free and clean, with no deleterious poisons lurking about. Nor is the effect merely for the moment, but is lasting. There is no artificial stimulation that has a reaction of weakness when the remedy is withdrawn. The Sanitarium patient invariably goes on improving after the treatments are discontinued.

I listened to Doctor Kellogg's advice and put it into practice. I changed my diet, and by following a few simple methods I have made a wonderful change in myself. These methods are so simple you can easily follow them yourselves in your homes.

We are all interested in this topic, because

It is of Most Importance.

It may seem strange for a man to say that the care of the body is of prime importance, but we are worth in this world precisely what our bodies are worth, and no more. We can do what our bodies will permit us to do; when the body fails, we are out of the race.

My exact topic is not gymnastics, it is not

(Continued on page five)

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THE LITTLE FOXES

It is not the great elephants that trample down the crops and uproot the trees, and ignore fences and jostle a native hut into destruction; it is not the fierce lion that roars and springs with tremendous force upon its prey; nor is it the behemoth that rushes like a tornado through the jungle, making the very earth tremble; it is none of these gigantic beasts that do the greatest amount of damage. It is rather the little sly foxes that creep up so stealthily and gnaw the tender vines so quietly, that the husbandman has to fear. It is the little worms and insects, and the mite-like scale and pests that destroy the labor and property of the husbandman.

So in the matter of health, it is not the great besoms of disease that sweep over the land, carrying away the weak and shiftless people, that we have to dread in this land of enlightenment and progress; but rather the little mischievous foxes of habit and fashion. These habits settle themselves upon our communities as the San Jose scale comes down upon our orchards. Unobserved these pests come and do their work of destruction almost before the world at large is aware of their presence. The orchardist who really cares for his trees is on the lookout for all such enemies and attacks them on their first appearance. The health of our nation and generation is not imperilled by the great epidemics that in other days have swept over countries; we have learned how to meet and cope with these great evils; but there are hundreds of apparently little enemies that are sapping the very life of our people as individuals, until it is rare to find a real sound man or woman in any civilized community.

Hundreds of thousands of people are being carried down to premature debility and death by causes that are so insidious and so concealed that their real character is not understood. And these habits are strongly entrenched in ordinary social and family life, so that to speak of them sounds almost like sacrilege, and the one who does so usually hears only the protests of those whose sweet dreams of bliss are disturbed by the warn-

ing voice. The tea, the coffee, the cigar, the cocktails, the pickles, the beef and pork and chicken,—these are thy gods, O Israel! Rather, these are the foxes that spoil the vine and cause youth and manhood and womanhood to droop and fade. Our most dangerous enemies are fostered in our own homes and there they do their work of destruction.

THE FOLK THAT LAUGH

THE following is a scratch from the pen of Wilhur D. Nesbit, the eminent author, who was a guest at the Sanitarium a couple of weeks ago:

The folk that laugh—God bless them!

They lighten all the day.

They bring the cheer of sunshine clear

Though skies be brooding gray.

They lift the load of trouble,

They ease the grip of toil;

They leave less room for grumbling gloom

Our precious hours to spoil.

What though they have their sorrow?

What though they have their woes?

They aim to get the laughter debt

The joyous old world owes;

And so they make a stranger

Of foolish fret and fear,

And make each day a happy way

Of rich content and cheer.

The folk that laugh—God bless them!

What ills do they not mend!

For them the rose in beauty glows,

And every man is friend.

For them the skies grow bluer,

For them the stars are bright,

Gloom flees away across the day

And comfort bides at night.

SWAT THE FLIES! "KILL 'EM DEAD!"

THE Battle Creek Sanitarium wants all its guests to take timely heed of this germ-carrying, death-dealing pest; to exterminate the insect from every room and nook and corner, whenever they pass the closely guarded, well-screened doors.

Not only your own but your children's lives depend upon it. You are responsible for them to that extent.

Several outbreaks of infantile paralysis in many parts of the country indicate that this disease has established itself and is to be one of the terrors threatening the lives and health of American children which must be reckoned with.

A New Indictment

Announcement has come from the Rockefeller Institute that experiments upon monkeys prove that the bacillus of infantile paralysis can be communicated by flies. The discovery tends to clear up a puzzle associated with the disease, for in certain communities it has appeared among families widely separated, never coming in contact with one another. The fly would seem to have been the carrier and is to be blamed for the spread of the disease from one town to another. Every one has seen flies in railroad cars.

The crusade against the fly in Battle Creek

has been carried on with great success. But every precaution is necessary, for one fly in summer can produce normally 195,312,500,000,000,000 descendants. Somebody had a fine job computing the offspring from that one aforesaid fly.

The fly is to be killed, no matter where he is. It is possible that a fly may light on a man's head. A person in swatting, of course, will only try to end the fly's existence, saving the head of the man so far as is consistent with the killing.

CHATS WITH SANITARIUM GUESTS

THAT Michigan and the north pole are more closely related than Battle Creek and the equator, and, on the other hand, the fact that the Southern States are more closely allied to that equator than Michigan, has in itself proved an inducement for Southern people to visit the Sanitarium, and incidentally, Battle Creek. At the same time they reap an abundant harvest of rest, pleasure and health from their treatments and visit, and as hundreds—yes, thousands—of cases will show, they leave the Battle Creek Sanitarium rejuvenated in body, spirit and soul.

Here is what a few of our more prominent Southern friends have to say of the institution and its system:

COL. JAMES D. RICHARDSON, of Murphysboro, Tenn., Grand Commander of Scottish Rite Masonry in America: "It was fourteen years ago that I made my first visit to the Battle Creek Sanitarium, and I've been coming ever since. I have never tried the treatments before, but now having become convinced of their power, I'm going into it more enthusiastically than I ever did before, and I now purpose taking the treatments. There isn't a stronger advocate in America to-day than I am for the Battle Creek Sanitarium and its system. This place has become like a second home to me. I can not keep away from it."

Col. Richardson is the highest Mason in the world and his name is familiar to every Mason. He has written several books, among them being the Presidents' Messages and Papers, which gives the addresses and papers from the time of Washington to McKinley's time.

C. E. BUEK, Chattanooga, Tenn., president of the Frictionless Metal Co., proprietor of one of the largest sanitary dairies in the South, and formerly known as the "Iron King" of the South: "In search of health I came here three years ago after having tried a great number of institutions, and became so impressed with the Battle Creek Sanitarium System that I've been living the simple life as surreptitiously as anybody possibly could. I am thoroughly satisfied that to be free of sickness we must live the Sanitarium way, absolutely abstain from the use of meat and eggs and tea and coffee, and last but not least, thoroughly masticate the food."

C. H. BYRN, merchant, of Murphysboro, Tenn., son-in-law of Col. James D. Richardson: "Call me the 'Battle Creek Sanitarium crank,' and you have my feelings in a few words. Too much praise is not enough for the Battle Creek Sanitarium and Doctor Kellogg. When I first came here, in 1897,

the people at home never expected to see me alive again. I came here the second day of August and left on December 15, a different man, altogether and completely cured. In the past fourteen years I haven't taken fourteen doses of medicine. I never need it, for I've felt better in those fourteen years than I ever did in my life before. So far as I possibly could I have tried to live the Sanitarium way and my family have done the same. There has been practically no sickness in the family since we started using the foods they use here. We have a daughter fourteen years old who has not missed a day's school in seven years. I credit the Sanitarium system with it all. I surely love this place. I'm not here for treatments but just back on a visit to the Sanitarium and because I like to see Doctor Kellogg."

Mr. Byrn has recommended the institution to hundreds of people, who later became patients.

METHODS OF REJUVENATION

(Continued from page three)

athletics, but just what Doctor Kellogg has said—right living. I am very glad that the Sanitarium has organized a school of physical education. The influence which will go out from this school will reach to the two oceans and to the borderlands; and I hope the time is not far distant when there will be fewer patients here and more who come to learn this gospel of health.

Let us look at it from a purely business standpoint, and let me ask you the question,

Does it Pay to be Sick?

You will pay any price to bring back health to yourself or to your loved ones, but the cost is enormous. Add to this cost the worry, and the care, and the oppression, and the depression, and does it pay? Part of that money invested in preventive medicine would have saved you all this care. Therefore let us give a little more careful attention to preventive medicine.

Let me lay before you one or two facts. In the first place, the man or the woman who gets ahead in this world is a man or a woman of action, of energy, of life, of endurance. A man can do better work with good tools than with poor tools; and a man with a reliable body is more to be depended upon than a man who is ailing. That is just as true of the housewife, or of any woman who carries responsibility. It is true of a young man, and I say it often to our boys in the university; for it is not unusual for a man to carry away from the university the coveted prize, and fail absolutely as a man and a worker, because he has lost that vitality that he must depend on later in life. As a matter of business, does it pay?

It may seem strange to you that in our modern university

The Erect Figure

is the exception and not the rule, and that in everyday life we so seldom see a man or a woman who stands well. A well-known specialist, a surgeon of Boston, in addressing young women some time ago, used this method of explaining the necessity of carrying the body well. The various organs, so to speak,

rest on shelves, parallel with the floor, and when the body is perfectly erect, these organs are very easily sustained, and there is no pull upon other organs or upon ligaments; but just as soon as the body begins to bend, the shelves begin to tilt, and the organs are all forward and down, and perhaps off the shelves, producing various ailments. Therefore I urge every man, woman and child, regardless of age and conditions, at least to try to stand well.

You Will Find that it Rests You.

The body that is inclined forward, the shoulders that are rounded, the hips that protrude from the body out of its mechanical lines, make an extra and a useless waste of energy. The body that is erect, with the arched chest, and the hips carried well back, so that the weight is above the long bones of the leg, is the normal body; the organs should then be in their normal position, and the result is better health. If I can persuade many of our men who come to me ailing to stand well, I know that I have taken a long step in the right direction. When young women complain of sideache and backache, and one can see at a glance that the head is forward, the chest is back, and the body is something like a question mark, one has at once the first cause for at least a part of their distress.

If one would stand against the edge of a door or the side of a wall with the heels touching, the hips back, the chest arched and the head forced back, in a short time one would begin to approximate that standing position. Not only will that save a certain amount of strength that is being wasted, but it

Adds to the Personal Appearance.

Men who are forty or fifty years of age can change the body, if they have the courage. But things do not come of their own accord and unsought in this world.

I met in an Eastern city some time ago a beautiful woman whose hair was perfectly white. She must have weighed 160 or 170 pounds, and I asked her to what she attributed her unusual agility and life. She said, "I skip the rope every morning and evening for two or three minutes." If the machinery of the body is becoming sluggish in its action, follow the example of this lady. This whips the heart into action, and the breathing is deep provided there is nothing to prevent deep breathing, and there is a change in the tissues of the body that is most desirable. We have at our university fifty or sixty skipping ropes, and we set the men at this exercise daily.

When I speak of physical training, I mean by that, not development of the muscles merely, but the development of every part of the body—the care of the eyes, of the nose, of the mouth, the training of the heart, the development of the lungs, and the washing out of the various organs of the body.

I have spoken of one or two superficial reasons. I want to say a few words about the deeper reasons for cultivating the physical machinery.

In Our Tests at Yale

we found that when the right hand was trained in feats of strength, the left hand, although not trained at all, learned almost equally well. We found that men who attentively watched other men exercise, increased the size and strength of the muscles used. It seems strange, but there is really nothing marvelous about it. If you are greatly interested in a contest of any kind, and a friend of yours is taking part, how you will work with him; in watching the running high jump you seem to lift your own feet, and when a ball is being thrown your hands are almost at work. It is purely a physiologic act, a normal act of the neuromuscular machinery.

Doctor Munger, one of our leading divines

COUPON

Send Us the Names

of interested friends who you know would like to have the information contained in the BATTLE CREEK IDEA, and we will send them free of charge a few sample copies. Simply write their names and addresses in the blank spaces below, cut out the coupon and mail to us, and we will send the papers.

NAMES

ADDRESSES

and writers, made the following statement: "When we think, it is not alone the mind that thinks; it is the whole man, and the process begins with the body. The body fiber or quality reaches to the thought. You will never get a fine thought out of a coarse body; not less will you get sound thought out of an unsound body. The bodily condition strikes through, and shows itself in the quality of the thought. The body lies at the base of success in all respects. A poor body

means a poor life all the way up, even to the highest stages of spiritual life."

One of my colleagues advised me some years ago that it would add to the dignity of my work if I had a collegiate degree, and although I was a busy man and had several schools, I entered Yale University as a sophomore, took every examination, and graduated when I was forty-two years of age. The fever seemed to have obsessed me, and the next year I obtained the master's degree,

and later on the master of science degree. But when I looked in the looking-glass I saw the price I had paid for those three degrees. I was nervous, suspicious, apprehensive, and dreaded meeting any one. My weight had run down, the tongue was coated, I could not depend on my memory, and life was not worth living.

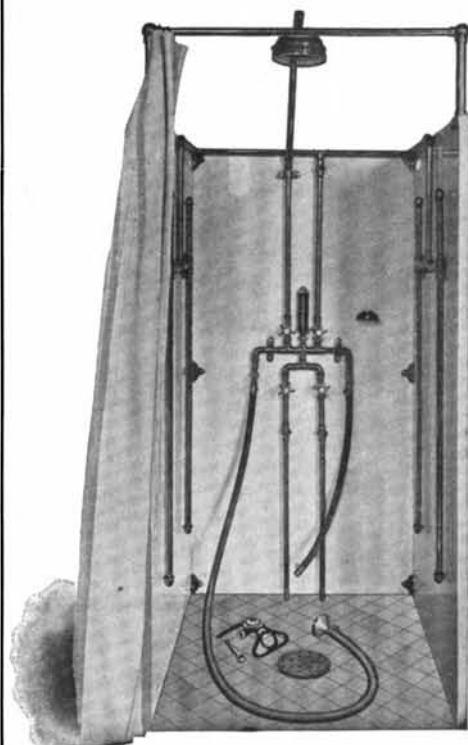
I came here and had a talk with Doctor Kellogg, and I said to myself, "If there is anything in this physical training, take your own medicine." I did take my own medicine, and in one year I had gained twenty pounds, my memory returned, and when my friends came I held out both hands to them. I found that the circulation through the liver and the kidneys and the pancreas and the spleen was so very sluggish that there was not proper assimilation. So I began at once to take up active leg work, and to skip the rope. Then, in order to send the blood through the stomach and liver, I took trunk-bending movements with machines, and dumbbell exercises. The upper arm increased two inches in one year, the chest increased two inches, and other measurements in proportion. The heart regained its normal tonicity and strength; and I did not know that I had a stomach.

The man of action is the man of health; action is health and inaction is death. And there is no stopping-place; you are always going toward life or you are going toward death.

ARRIVALS

THE list of arrivals at the Battle Creek Sanitarium for the week ending July 16 is as follows: Smith Cook, Ind.; Marguerite Furey, Mich.; J. H. Charmon, Pittsburg; Wm. Lasday and son, Pittsburg; W. V. Campbell, O.; E. T. Long, Mich.; C. E. Buck, Tenn.; T. E. Hull, Kans.; Monroe H. Morrow, Mich.; U. S. Barke and wife, S. Dak.; Bernard Ravdin, Ind.; I. Hirschberg, N. J.; Mrs. John Gilbert and Miss Annie W. and Mr. L. F. Gilbert, Tex.; D. J. Leahy, Chicago; Ida Babin, Ill.; Mrs. W. H. Cook, Mrs. C. O. Hovey, and J. J. Rupp, Mich.; Mr. and Mrs. Edw. Gleason and Miss Hortense Gilbert, New York City; W. F. Harris and Mrs. Geo. W. Harris and daughter, Tex.; Rose White, Mrs. Marlin Roach, and W. W. Harver, M. D., O.; J. K. Mitchell, Ill.; Mrs. V. O. Ford, Tex.; Miss Louise E. Macatine, Brooklyn; J. P. Brough and wife, Okla.; R. N. Buchanan and wife, and Miss Robertine Buchanan, Indianapolis; Dr. Nettie Klein, Tex.; Smith A. Latta, Tex.; L. C. Steers and wife, Detroit; Mrs. A. C. Cruce and Miss Gail Cruce, Okla.; L. Gordon and A. W. Gordon, Ala.; Luke Lilley and wife, and Anna M. Brooks, Cincinnati; O. F. Fienzel, Indianapolis; W. Lee Jessup, Ga.; A. M. G. Bonnell, Mass.; Anna Francis, Detroit; W. G. Follett, Pa.; Mrs. Frank Wilkinson and A. B. Wickham, M. D., Detroit; J. Warby and wife, Ill.; John W. Doyle, Ia.; Mrs. Geo. Martz and Mrs. John D. Miller, Ill.; Miss J. Skiffington, Tenn.; G. N. White, Kansas City; Mrs. Geo. R. Belding, Ark.; Mrs. Roy Roach, Mo.; Mrs. Permelia Stilson, Okla.; Theo. A. Henning, Neb.; Mr. and Mrs. J. H. Robler and Miss Louise Robler, Mo.; R. F. Webb and wife, Indianapolis;

"The Greatest Thing in the World"



¶ You have still to enjoy the greatest thing in the world if you are not yet taking a cold shower—rain, needle, or spray—every morning. Nothing in all this wide world can equal it as an eye-opener, appetizer, and invigorator. It makes you all aglow with that fine feeling that life is worth living.

¶ Would you pay a hundred dollars to enjoy this luxury in your own home every day for the rest of your life? It sounds incredible, but that is really all you have to invest to secure the KELLOGG HOME DOUCHE, which can be installed in your own bathroom, ready for immediate use at your own pleasure.

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¶ The Kellogg Home Douche gives you in a more convenient form practically the same advantages as the

celebrated Kellogg Douche Apparatus now in use everywhere in sanitariums, hospitals, treatment rooms, gymnasiums, etc. And the Home Douche dispenses with the attendant—you operate it yourself, and get as good results.

¶ And if you use it daily, you may steer clear of the day when you have to go to a sanitarium to get water treatment as a cure. *Get it now as a preventive—in your own home.*

PRICE:

The Kellogg Home Douche Apparatus, complete with attachments for Spray, Fan, Jet, and Ascending Douches	\$100.00
Duck Curtain and Curtain Rod, extra	10.00
Three Kiln-dried Hardwood Slabs with wood basin and floor drain (the wood basin is to be filled in with cement by your mason), extra	35.00
Good Health, Slate Slabs, each, extra (wood slabs just as serviceable)	15.00
Battle Creek, Marble Slabs, each, extra	35.00

Mich.:

I am interested in your Douche for the Home—send me full particulars.

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Battle Creek, Michigan

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N. Standard, Cleveland; D. S. Miller, O.; Miss H. N. Standard, Cleveland; C. J. Watt and wife, Can.; J. K. Williams, Tenn.; E. E. Bartlett and wife, and Miss Grace, Ill.; Mrs. W. J. Steen and Miss Amelia Steen, La.; A. Kibb, wife and daughter, Indianapolis; F. W. Bailey and mother, Tex.; P. A. McCaskey, Cleveland; T. Cornelinson, Washington, D. C.; Jas. P. Grey, Tenn.; C. C. Rhodus, Ky.; L. E. Salmon, New York City; J. S. Lincoln, Kalamazoo; C. S. Jones, Ind.; E. W. Taylor, Miss.; Arthur Reed, Ia.; W. I. Wallace and wife, Md.; Mrs. Minor Tennant, Mrs. M. McCoy, Dr. Geo. S. Condit and wife, W. Va.; L. A. Claggett, Tex.; Harry L. Stevens, Okla.; R. C. Rudisell, wife and daughter, Ark.; E. H. Pieke, Mrs. W. F. Boyce, Mrs. I. W. Tyler, Mrs. R. D. Shelby, and W. F. Rieke, Ill.; Edgar A. Bancroft, Chicago, and Mrs. F. B. Badt, Chicago; J. W. Brown, O.

News and Personals

F. M. Bush, attorney, of Newhelbron, Miss., is a guest.

H. H. Albert, president of the H. H. Albert Mfg. Co., of Elkhart, Ind., is with us again.

Miss Louise Robler, a student at Vassar College, is among the popular guests at the Sanitarium this week.

A restaurant proprietor of Erie, Pa., has been converted into a vegetarian through the diet at the Sanitarium this week.

Mrs. Cruce and Miss Gail Cruce, wife and daughter of the new governor of Oklahoma, of Oklahoma City, are guests at the new Annex.

No less than nine former patients recommended the Battle Creek Sanitarium to F. C. Snowgold, of Memphis, Tenn. And he is here now.

There was the largest influx of patients on Monday of this week of any day this year. The register for that date showed no less than seventy-seven new arrivals.

Edward Firestone, the eminent Lisbon, Ohio, banker and capitalist, took advantage of the fine weather and made a trip to the Sanitarium during the week.

A movement is on foot to bring to the attention of the Public Service Commission of St. Louis the national movement to prohibit all tobacco smoking on street cars.

Prof. E. F. Schively delivered an able address on the lawn on Sabbath afternoon on "The History and Origin of the English Bible," to a large and appreciative audience.

A prominent Canadian at the Sanitarium this week for treatment and recuperation is C. J. Watt, president of the largest wholesale grocery house in Brantford, Ont., Can.

Along with Pine Bluff, Little Rock, Ark., has its colony at the Sanitarium this week. According to the register there were no less than thirty-four patients from that city during the week ending July 15.

Ex-Governor Campbell, of Texas, recommended Mrs. G. W. Harris and daughter Mary, of Palestine, Texas, to the Sanitarium. They arrived a few days ago and expect to make a prolonged visit.

Another well-known real estate dealer in our midst is P. W. Crawford, of Little Rock, Ark. Mr. Crawford is very much taken up with the institution and the only fault he has to find is that his stay is too short.

C. M. Kendrick, a financial king of Broadway, president of the Title Guarantee and Trust Co., at 176 Broadway, and executive offices in the Tribune building, is on the long list of distinguished patients for the week.

Among our prominent lady guests this week is Miss Wilhelmina E. Clissold, of the famous Harewood House, Formby, Lancashire, England, who is in this country as a student at the Ursuline Academy at Toledo.

Sanitarium Postcards

A series of beautiful illustrations of familiar features and scenes about the Sanitarium, taken by our own artist. Select from the following list. Prices, two for five cents, one dozen for twenty-five cents, sent to any address. Order of the Sanitarium, Battle Creek, Mich. They may be ordered either by number or title.

- 1 Bird's-eye View Sanitarium.
- 2 Sanitarium in Winter.
- 3 Gentle Bath.
- 4 Gymnastic Drill.
- 5 A Winter Night Scene.
- 6 A Winter Night Scene.
- 7 The Front Entrance.
- 8 Receiving Physician's Office.
- 9 Phototherapy Department.
- 10 Blood-Test Laboratory.
- 11 Ladies' Bath-room.
- 12 Vegetable Greenhouse.
- 13 Corner in Gastric Laboratory.
- 14 X-Ray Laboratory.
- 15 Gymnasium.
- 16 Front Entrance of the Sanitarium.
- 17 Main Building from the College.
- 18 East Hall.
- 19 Palm Garden.
- 20 In the Greenhouse.
- 21 The Main Parlor.
- 22 The Main Dining-room.
- 23 West Hall.
- 24 Northern View of Sanitarium.
- 25 Cooking School.
- 26 Nurses at Chapel Exercises Easter Morning.
- 27 Universal Strength Test.
- 28 Breathing Exercises.
- 29 Breathing Exercises.
- 30 Breathing Exercises.
- 31 The Kitchen.
- 32 Palm Garden Pharmacy.
- 33 Lady Nurses' Dormitory.
- 34 Bath-room Treatments.
- 35 College Building.
- 36 View of the Rear Lawn.
- 37 View from Front Entrance.
- 38 Southern View of Sanitarium.
- 39 Ladies' Indoor Swimming Pool.
- 40 Nurses' Graduating Class, 1910.
- 41 Gymnasium and Bath-rooms.
- 42 Nurses' Graduating Class, 1911.
- 43 Main Building (from College Lawn).
- 44 Sanitarium Annex.
- 45 Sanitarium Annex, from South Lawn.
- 46 The Annex, South Lawn.
- 47 Sanitarium Annex, from Southeast Lawn.
- 48 Sanitarium Annex, North View.
- 49 Sanitarium Annex, Southeast View.

"Ed" Gleason, superintendent of the University Club of New York City, who makes an annual visit to the institution, is here with his wife. They are both taking treatments and expect to remain for a couple of weeks.

Mrs. Roxalee S. Andrews, daughter and maid are occupying a suite of the Sanitarium's best. Mrs. Andrews is the wife of Frank Andrews, said to be the best known banker in the South. Their present home is at Houston, Texas.

The general mercantile business at Kendallville, Ind., proved a trial for Donald L. Campbell, and as a result he is now registered for treatment at the Sanitarium. He asserts that he has greatly benefited by the system and now believes in it.

J. B. Hayward, junior partner of Kerr, Page, Cooper & Hayward, New York City's most prominent legal firm, whose offices are in the famous Singer building, and who have been interested in some of the largest cases of the great city, is a guest for a week.

Rev. Benjamin S. Haywood, of San Juan, Porto Rico, superintendent of the Porto Rico Methodist Episcopal Mission, together with his wife and daughter, are visitors for a few weeks. Rev. Mr. Haywood addressed a large audience in the chapel on Sabbath morning.

Judge J. A. McIlvaine, of Washington, Pa., noted jurist, and Mrs. McIlvaine are on a return visit to the Sanitarium. Judge McIlvaine is prominent in the affairs of Washington and throughout the State of Pennsylvania. He made his first visit here several years ago.

Too much work and worry proved the cause of a breakdown in the health of A. M. Finley, of Crowley, La., largest realty dealer in his city, and owner of many fine acres of rice and irrigation lands, who has sought out the Battle Creek Sanitarium for recuperation.

Although a French priest in Paris has received pontifical authorization to learn the art of aviation, it is not the opinion of Rev. Fr. Joseph F. X. Cloutier, pastor of the Sacred Heart Convent at Albany, N. Y., and now among the guests at the Sanitarium, that the time is drawing near for clericals to fly.

Even to railroad men the Sanitarium is proving that the simple life is the only one worth while. We now have with us L. B. McGowen, inspector on the New York Central lines, whose home is at New Castle, Pa. Although he has been here but a few days, Inspector McGowen feels greatly benefited.

Dr. J. H. Kellogg was called to Winona Lake Assembly on the 12th inst., where he delivered to a very large and interesting congregation a lecture on "Health and Efficiency," this being the topic for the week at that popular gathering. Dr. S. C. Dickie was the presiding officer, and the address was enthusiastically received.

The sad news was received on Friday of the death by drowning in Lake Michigan of Mrs. R. C. Prior, of Houghton, Mich., wife of a prominent capitalist of that city. The family were at the Sanitarium but a few weeks ago, and for many years have made an annual visit. The sincerest sympathy of the Sanitarium is extended to the bereaved family.

The teaching profession appears to predominate over all others among the ladies at the Sanitarium this week. Teachers worn out from long and tedious toil with the younger generation feel the need of rest and recuperation probably a little more than those in any other profession. They always look joyfully ahead to vacation time in good old summer when the song birds are singing in the tree tops, when boating and swimming are at their best, and the warm days and cool, balmy evenings make life worth while. Among the lady teachers at the institution this week are Miss Sarah E. Anderson, Hartwell, Ariz.; Miss May B. Shaw, New York City; Miss Rose N. White, Logan, Ohio, and sister, Miss Bird White; and Miss Ida Babin, Kankakee, Ill.

We have been greatly pleased in the last few days to receive a visit from Mrs. Elmira S. Steele, of Chattanooga, Tenn., who for twenty-five years has stood at the head of a home for outcast and neglected children in that city. Becoming acquainted with Sanitarium principles several years ago, she has adopted them and is able to make the statement that in all her experience they have never had a single case of typhoid fever, la grippe, or any of the prevailing diseases. The children are fed on plain, wholesome food and in such quantities as are entirely sufficient for their needs and yet preserve their appetites. Over 1,200 children have passed through Mrs. Steele's hands. Most of them have gone out to schools for higher education and to lives of usefulness.

Among the prominent business men of the country undergoing treatment this week are Charles Meshel, of the well-known fur house of Meshel & Co., New York; J. H. Sykes, Muskogee, Okla., merchant; C. C. Frackleton, Petersburg, Ill., banker; D. W. Booker, Lebanon, Ind., manufacturer; Simon Weisberg, collector, St. Louis, Mo.; A. Stern, Wahseton, North Dakota, clothier; H. B. Rose, Atlantic, Pa., retired dry goods merchant; T. S. Pierce, Tulsa, Okla., banker; Alex. Larson, formerly of Sweden, now of Sioux City, Ia.; C. F. Edwards, president of the Specialty Mattress Co., Huntington, W. Va.; Frank Andrews, one of the best known bankers in the South, of Houston, Texas; F. E. Meigs, Hiram, Ohio, returned missionary from Japan; J. Mieldazis, merchant tailor, Shenandoah, Pa.; W. R. Green, merchant, Waynesfield, Ohio; and L. Gordon, Birmingham, Ala., jeweler.

The Battle Creek Chautauqua for 1911 will be held on the same grounds on which it has been held for two years past, adjoining the Sanitarium villa at Lake Goguae. The programs are now published and place

before the citizens of Battle Creek a most attractive and instructive schedule of lectures and entertainments. The meeting lasts over and includes August 6. The city is being canvassed for season tickets which, we are informed, are being readily taken by the citizens. The Sanitarium purchased 200, which it is disposing of to its guests and helpers. The management of the Sanitarium feel heartily in sympathy with this effort upon the part of our leading citizens to supply for all a week's entertainment that is worth while and wholesome and in every way commendable. It is to be earnestly hoped that the people of Battle Creek will rise to a full appreciation of the value of this undertaking and that it will not lack for hearty support. Season tickets may now be purchased for \$2.00.

One who might be termed the "King" of advocates for the Battle Creek Sanitarium, and who has recommended more people to this institution for treatment and rest from all parts of the United States, and especially his home town, than anybody else, is Charles H. Owen, of Pine Bluff, Ark., who represents a large wholesale grocery house of New Orleans. There are no less than eighteen patients in the Sanitarium to-day who were recommended here by him. They are T. S. James, wife and daughter; Dr. J. F. Simons, wife and two daughters; G. S. Taylor, wife and daughter; W. H. Westbrook and wife; C. A. Knox, Mrs. H. A. McCoy, R. A. Pickens, A. W. Mills, and Mr. and Mrs. Owens. It is needless to say that the Sanitarium appreciates Mr. Owen's enthusiasm. These men and their families are prominent in business and social circles of Pine Bluff. Mr. James is a banker and planter, being connected with the Bank of Pine Bluff; Doctor Simons is president of the Simons National Bank and a heavy stockholder in the Citizens' Bank; G. S. Taylor is a prominent attorney and planter; C. A. Knox is the proprietor of Pine Bluff's largest department store; R. A. Pickens owns 4,000 acres of cotton alone; and Mr. Mills is an insurance man of weight. Mr. Owens has made a great number of friends since coming to the Sanitarium this year. He is congenial and characteristically optimistic.

FOR SALE AT BIG SACRIFICE

Fine residence property, located on a quiet, well-shaded street, a block from the Sanitarium and two minutes' walk from the car line. The house contains nine fine rooms, large bathroom, two store rooms, closets, and two large outdoor sleeping porches; gas upstairs and down; electric lights; practically new furnace with connections to every room; hot water tank connected with both furnace and gas heater. Gas range connections both upstairs and down. Upstairs could be rented for housekeeping if desired, or ideal for renting rooms. Property could not be duplicated for five thousand dollars. You'll be surprised at the low figure and liberal terms at which it can be purchased—a snap for someone.

CHARLES F. WISE.

Bell phone 561 R.
Automatic 1279.

THE BATTLE CREEK IDEA

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NUMBER THIRTY-FOUR

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PUBLISHED WEEKLY AT BATTLE CREEK, MICHIGAN. JULY 28, 1911

WHAT IS MEANT BY THE BLOOD-PRESSURE

Dr. A. J. Read Explains, Showing the Significance of High Blood-Pressure

THE blood-pressure is the measure of the tension of the arteries. We can measure the blood-pressure by compressing some tissue

ELECTROTHERAPY: ITS USE IN THE SANITARIUM

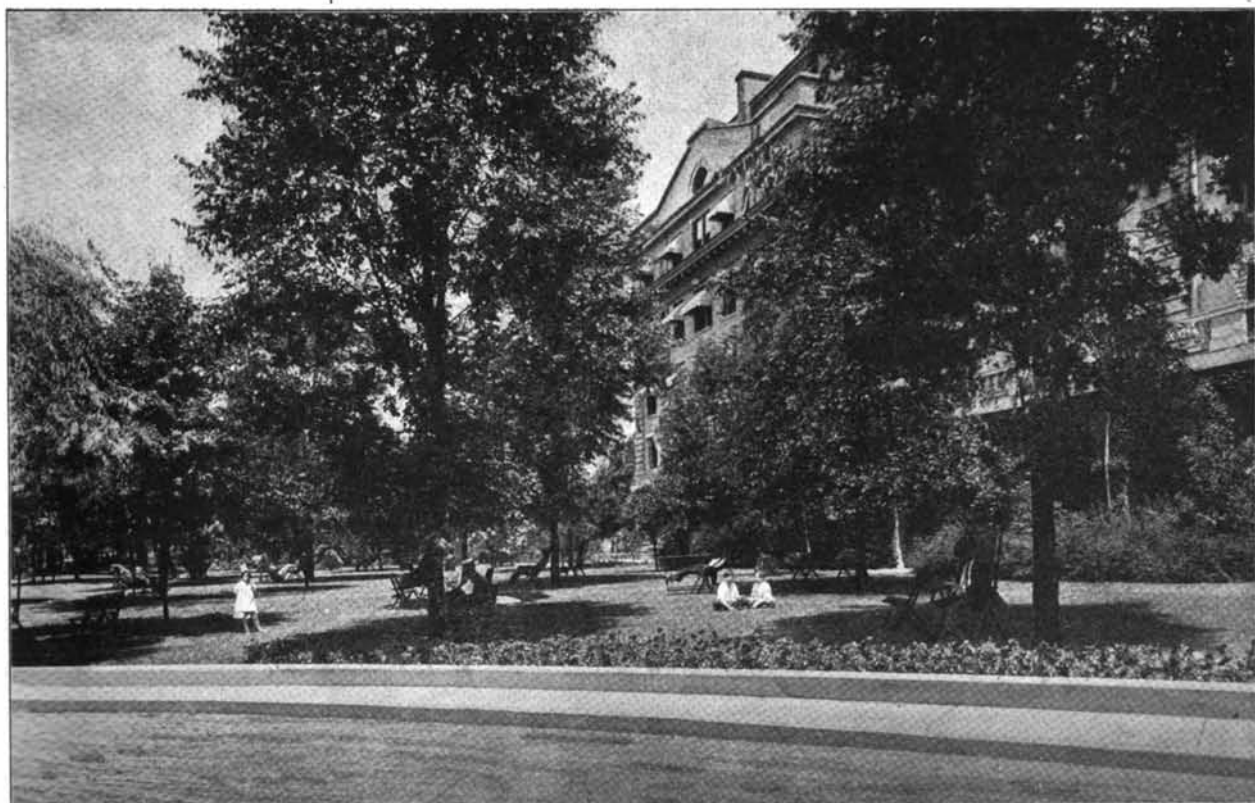
How Electricity is Coming into Use in the Treatment of Disease—Great Advances Being Made

THE modern force of electricity is being utilized in every branch of industry and eco-

THE GENERATION OF THE BATTLE CREEK IDEA

Dr. J. H. Kellogg Traces the Development of Scientific Hydrotherapy

THE Battle Creek Idea is not a modern thing, and it did not originate in Battle Creek; it is a very old-fashioned idea that



A COOL RETREAT ON THE SANITARIUM LAWN

of the body, as of the arm, or the ankle, with a rubber bag. The pressure of the blood can be accurately measured in the pressure of the air-bag by which the tissue is squeezed, and that pressure is communicated to a col-

(Continued on page five)

nomies. Even medicine has appealed to its aid, and it is found to be a ready and effective servant in the hands of the doctor and nurse for the relief of suffering and the correcting of wrong physical conditions. Elec-

(Continued on page three)

has come down through the ages, from prehistoric times. I am going to tell you, however, something of the beginning of scientific hydrotherapy.

One hundred years ago there was a peasant boy named Vincens Priessnitz living up

Original from

UNIVERSITY OF MICHIGAN

among the hills of Austrian Silesia, at Graefenburg. One morning a traveling locksmith came through his village, and as he was repairing the locks he heard the people talking about a cow that had cut the cords of one of her hind legs by backing up against a sharp sickle. He told them that he had certain magic words by which he was able to cure such injuries. The next morning he was allowed to go to the pasture to practice his magic on the cow, but he would allow no one to accompany him except this boy, who was then about fourteen years old. The sorcerer sat down by the cow, crossed two sticks over the wounded leg, and repeated a number of magic words; then he took a linen cloth, wet it with water, bound it around the leg, and gave instruction that this cloth should be taken off and moistened three times a day. He went on his way, and when he returned in two weeks the cow was well.

One day, some time after, Priessnitz saw in the woods a deer that had been wounded by the hunters, and he noticed that this deer came every day to put its wounded leg into the water of a cold spring; so he conceived the idea that the spring must have some particular healing virtue.

When Priessnitz was driving to the mill one day, the horses ran away and threw him out, and the wagon ran over him and crushed his ribs. The doctor said he could not live; but he had already gotten the idea of

The Healing Power of Water,

and he had compresses of cloth laid upon his chest, with the result that in a few weeks he was well. The noise of his cure and of the cures of sick animals wrought by him went throughout the whole country, and great numbers of people began to gather in Graefenburg.

This uneducated peasant, who did not know how to write his name until he was forty years of age, and who left nothing behind him of any sort in the way of writing with reference to his views and theories, originated almost every single process that is employed in the water-cure methods. His methods, however, related entirely to cold water applications. Quite a number of warm water and hot water methods have been developed in this institution, but the cold water method was developed by Priessnitz. The institutions which practiced his methods were known as "cold-water cures," and there were a good many of them scattered all about this country.

The Methods of Water Cure

first used by Priessnitz were very crude; they were those he found in use among the peasants of Austria in the remote regions of the mountains. The patient was put into water as cold as it comes from the mountain springs, at the temperature of about 45°; but before this cold bath he had been wrapped up in a wet sheet wrung out of cold water, then with woolen blankets, and over all a feather bed had been placed; and he had been lying under that feather bed, sweating profusely for an hour.

Another of his methods was that the patient was wrapped in a wet sheet and well rubbed, then more cold water was put on and the rubbing continued until he was warm. This process was continued until the patient

had had as much as his strength would permit, then he was wrapped in a cold sheet and put into bed with blankets around him. Cold sitz baths were employed, of from one to three hours' duration, the water being changed as soon as it got warm. The temperature of the water used was never above 60°, and was usually from 50° to 55°. Cold water was poured from wooden pitchers upon various parts of the body. When a man had gout, for instance, the water was poured on his foot for ten hours in succession, the attendant rubbing the foot occasionally; the result was that acute attacks of gout were usually arrested, and the pouring and rubbing were continued until the disease was controlled.

When he became

A Little More Scientific

in his methods, the douche was elaborated. He used the great douche and the small douche. The great douche was fifteen feet in height, and the stream of water was as large as a man's arm; the smaller douche was nine feet, and the diameter of the stream was about an inch. The large douche was too heavy for some people, and it was necessary to have supports to keep them from being washed away.

Every single patient had to have his wet bandage applied at night,—the umschlag, or Neptune's girdle, as it is called. This is familiar to all Sanitarium patients. It was simply a long piece of the coarsest sort of linen, about three yards long, wet at one end, sufficient to go once and a half times round the body, then the dry portion wrapped around the outside and securely fastened with pins. In some cases these wet bandages were applied to the whole body, to the legs as well as to the trunk, particularly in cases of insomnia.

Priessnitz believed in exercise. He employed dumbbells and Indian clubs. These appliances and methods that we think so modern were employed by this Silesian peasant almost one hundred years ago. It is strange how long it takes a good idea to penetrate the obtuse consciousness of the general public. One hundred years we have been getting hold of these ideas, and we are only now beginning to grasp them.

Gymnastics in the Open Air

were a part of Priessnitz's system. Patients were sent out with an ox team to ride five or six miles to take a douche in the woods. He had not then sufficient money to bring the water down to the village, so the patients had to ride out to it; and in the winter time they had to go through the snow. They would turn out in great numbers and shovel paths through the snow, which falls there sometimes to a depth of eight or ten feet. They had to tramp out in the morning for eight or nine miles, until their cold bandages had been warmed up and dried out, and they had to drink from six to ten glasses of water on the road. Wood-sawing was another way in which Priessnitz exercised his patients.

Priessnitz knew absolutely nothing about scientific medicine, but he had gotten hold of a great principle of cure, and his ingenuity was extraordinary. He had a most remarkable mind and great sagacity and sound judgment. The time had come when the world

needed just the light and the knowledge that he gathered up and propagated. It would seem that he must have been inspired from a higher source, to have developed such a marvelous number of practical ideas with reference to the use of water.

The government of Austria gave to this man, who had never entered a medical school and who did not know an anatomical term,

A Special Diploma

to treat people by means of this new remedy; so he had the highest distinction of any physician in Austria. Then physicians began to flock in from all parts of the world. The profession, and even the governments of Europe, were so much attracted by the remarkable cures effected by this man, that they sent their best physicians to Graefenburg to study his methods. France, for instance, sent the surgeon-general of her army to learn the use of water, and it was adopted into the French army and used by the physicians who followed Napoleon in his campaigns, in the treatment of wounded soldiers. Wet compresses were employed instead of the cloths wet in irritating and polluting liniments of various sorts that had formerly been applied; and that was really the beginning of modern surgery.

About the time of the death of Priessnitz, a young man in Germany was just beginning the study of medicine, who proved to be of the greatest service in the advancement of hydrotherapy in a scientific way,—

Professor Wilhelm Winternitz,

who is now a professor in the Royal University of Vienna. When a young man, just graduating in medicine, he visited Graefenburg and investigated the hydiatic methods of Priessnitz; then he went home to Vienna and made a scientific study of all these different methods of treatment. He applied scientific methods of testing the condition of patients under treatment, determining the effects by means of the thermometer, the pulse, blood-pressure instruments, and various other devices; and so he began what is now known as the system of scientific hydrotherapy.

We have here a lady who is a regular patient of Professor Winternitz. The last time she visited Vienna, she inquired of him where in America she could obtain the same treatment that she received from him. He replied, "There is only one place in America;" and he sent her here. When I visited him at his place at Kaltenleutgeben, near Vienna, a few years ago, I said to him, "Doctor Winternitz, what is new?" He answered, "The only new thing we have is this:" and he took me into a side room and showed me

Our Electric Light Bath,

which he had adopted. There was a head projecting from the bath cabinet, and he introduced me to that head, which was that of Prince Hohenlohe, the first lord of the treasury of the Empire of Germany. The next time I called on Professor Winternitz I again asked him, "What is new?" He answered, "Only colder water, colder water, always colder water; I follow Priessnitz." This scientific man, who had for his patients the noblest people of Germany and the wealthiest of all Europe, was not ashamed

to say, "I follow Priessnitz." I also am not ashamed to acknowledge the indebtedness of the whole world to this simple peasant of Graefenberg.

ELECTROTHERAPY

(Continued from page one)

Electricity also lends itself to diagnosis in a most effectual way in

The Mysterious X-Ray,

by the use of which photographs are readily taken of the internal portions of the body, revealing beyond question or peradventure the exact conditions existing in those regions

the superintendent of the Sanitarium, and was here first put to practical use. Its benefits were so great and so obvious that others were not slow in availing themselves of the advantages of this means of treatment. These baths in the most approved pattern are now being manufactured at the Sanitarium and are being extensively sold and utilized. The bath consists of a cabinet in which the patient is seated with his head protruding through the top. The cabinet being then closed around the patient, numerous incandescent electric lights are turned on and the temperature of the cabinet is raised to the desired heat, perhaps 108 degrees, and within a very few minutes a profuse perspiration is induced. This is a modification of

The Faradic, Galvanic, and Sinusoidal currents are used according to the effects that are desired. The sinusoidal current was introduced first at the Sanitarium and is now extensively used. Static electricity is also brought into use for its sedative effects. The largest and most complete outfit to be found in any place has been installed in the Sanitarium for this purpose.

Another method of application is in the water bath. The patient is placed in a tub of water at neutral temperature, neither hot nor cold, with an electrode at the foot and the opposite pole at the head, and the current is then sent through the water and thus through the body. The current is graduated according to the condition of the patient. This is



IN THE ELECTRIC LIGHT BATH DEPARTMENT

which have heretofore been outside of ocular demonstration.

Many are the forms in which the electric current may be applied to the body or utilized in treating the sick. The Battle Creek Sanitarium was foremost in accepting the proffered aid of this medium when it was first extended through the discoveries of scientific men. And not only has the institution been ready to follow the light of discovery, but it has itself been in the front rank of discovery and investigation.

One of the most effectual modes of utilizing electricity in medicine is in the now celebrated

Electric Light Baths.

This method of treatment was invented by

the old Turkish bath with many advantages over it. The light is penetrating and has a tonic effect upon the tissues. The sweating is produced with much less exposure to unnatural heat, and consequently with less exhaustion. The elimination is more perfect. The effect of the bath is both eliminative and tonic.

The electric light may be used in a general bath or in local applications. Small polished metal receptacles containing two or three lights are applied to any portion of the body where the effects of heat are desired to reduce pain or to remove inflammation.

The electric current is brought into contact with the body in many different ways and in different forms of the current.

a tonic measure of very effective character, and is much resorted to for this effect.

Another way in which electricity is employed in the treatment of the Sanitarium patient is in a mechanical capacity. It is used to turn the machinery of the

Mechanical Swedish Department,

in which are located a large number of machines whose purpose it is to impart exercise to the patients. This is a most interesting operation to observe. The movements consist of vibrations of a gentle but rapid character, and of other vibrations and manipulations more pronounced and slower, of tilting machines, and kneaders, etc. They are calculated to awaken muscular and nervous ac-

(Continued on page five)

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"OVERWORK"

"BROKEN down by overwork" is the popular diagnosis of many a case of collapse. The popular verdict seems in many cases to be supported by the facts, but in reality there are very few cases in which such a decision is at all justified. While it is quite possible to overtax the body in any and in all of its functions, it is the abuse of the body rather than its use that debilitates and incapacitates it.

The human structure is a strange complexity of frailty and strength, of weakness and endurance. Life itself is held by a tenure that is at once exceedingly delicate and frail, and tenacious beyond belief.

Like any other piece of delicate and intricate machinery, the endurance of the human body depends upon the care that is bestowed upon it. Neglected, it is soon ruined; cared for intelligently, it will endure and perform beyond our ability to understand.

Here is a minister who is in charge of a large church. He prepares and delivers two sermons a week. He visits members, looks after the sick and straying, comforts, helps, directs, counsels, attends funerals and weddings, carries on a large correspondence, looks after finances, etc. He is a very busy man, and works hard. He goes late to bed, gets up late in the morning, eats heartily of rich food. His hands are soft and white, his muscles are degenerate, his digestion becomes disordered, his resistance is low, his throat gives out, his nerves are unstrung, and he is driven out of the field.

Overwork? No; yes. Overwork and underwork. A one-sided work that caused the tower of his strength to topple over because it was weak on one side rather than because it was exhausted on the other. Too little muscular exercise, too little bone and sinew rather than too much brain; too much good (?) food and too little power to digest it.

The same is true of all sedentary life. A well-balanced life does not wear out the body, no matter if the labor be hard. We were made and intended for hard work, and the brain worker should seek his rest in the cul-

tivation of his muscles. Every preacher and banker and lawyer and merchant needs a garden, and he should cultivate it himself—spade it, plant it, hoe it. In winter he needs a shop where he can work and keep his muscles strong and his hands hard. The average professional man need not do less mental work, but he needs to do more with the other side of his being.

A SUGGESTION TO MOTHERS

ACCORDING to Thomas Corneliuson, of the dairy division of the Bureau of Animal Industry of the United States Department of Agriculture, Washington, D. C., who is among this week's guests at the Sanitarium, the chief cause of the serious milk problem of the day is ignorance on the part of dairymen in handling the supply. As a suggestion to mothers traveling with babies, he says that an ice-box for milk is an ideal article to have along. One of these ice-boxes may be made of an ordinary tin box such as is sold for bread or cake. The interior of the box, he avers, should be lined with corrugated paper, a little excelsior being placed under the bottom sheet. A tiny pail should be placed in the corner and filled with ice. The first supply of ice will last for some time, and it is not difficult to refill the pail at railroad restaurants on the way, if the journey is a long one. The bottles of milk should be placed in the box, together with a small bottle of boracic acid water to cleanse the rubber nipples. A shawl strap may be used to secure the box and serve as a handle in carrying it.

THE MISSION OF THE FLY

THE road through life of the conscientious layman is beset with scientific perplexities. No sooner has he changed the habit of a lifetime in obedience to some scientific warning than a still later investigator rises to unsettle his newly acquired faith. Take the case of the housefly, for instance. Sanitarians conducted for several years a campaign of education against the little pest that left it not a contaminating foot to stand on, and culminated this spring in a determined health campaign in Battle Creek and other cities for its extermination. The newspaper poets even enlisted, and sang our duty toward ourselves and the community in verses of the "Housewife, swat that fly," and "Ten wicked houseflies sitting in a row" variety. A flyless millennium was in prospect.

Now arises the inevitable unsettlement of our new belief and bids us pause. The mission of the housefly, he reasons, is to scavenge. Therefore, if we kill it in the house while providing work for it behind the barn, we may upset the balance of nature, which sounds ominous and means that, lacking the insect appointed by nature, the housefly may come to take up its unfinished task. And the housefly with its sting may make our last state worse than our first. Therefore it behooves us, says Health Officer Powers, of this city, before proceeding with our hunt, to remove the scavenging spots, which are

also breeding places, behind our barns, in stables and wherever else, in city or country, we unhygienically throw refuse and dirt.

CHATS WITH SANITARIUM GUESTS

THERE are so many kings in the commercial and industrial world to-day that to claim preference in behalf of any one of them would lead only to fruitless controversy and unpleasant dispute. There is the cotton king, the sugar king, the railroad king, the lumber king, the steel king, the stock exchange king, the board of trade king, the mining king, the cattle king, and standing out prominently is the corn king. It is safe to make the assertion that no other institution of its kind in the world has proved such a mecca for wealthy and prominent individuals of the "king" class, looking for health and recuperation from many months of brain torture, as the Battle Creek Sanitarium. But the Battle Creek Sanitarium does not cater to the kings of finance alone. It is a charitable institution as well. Following is what a few of the guests from various states have to say this week:

H. K. HARDY, general contractor, Jackson, Miss.: "Fine! Why, there is nothing on the globe to compare with this place. I had heard an awful lot of good things about it, but when I arrived here I found the place to be greater than I had ever dreamed of it being. I've been here a short while now and I never felt better in my life. And I've felt pretty good at times before, and pretty sick, too. I have every confidence in the diet system. You can put me down as a convert, all right."

JAMES T. MAC MURRAY, of Plainfield, New Jersey, general manager of the Niles, Bement, Pond Company, relates how he happened to come to the Battle Creek Sanitarium: "A couple of years ago I happened to meet a friend of mine in the city of Altoona, Pa., named William B. Norris, who is now general foreman of the Altoona shops of the Pennsylvania railroad. He was looking down and out, and as though he might die at any time. It was two years before I saw him again, but I hardly knew him. He was a different man altogether. On asking him what in the world he had done for himself or where he had been, he replied that he had taken treatments at the Battle Creek Sanitarium. That was enough for me. As soon as I got back home to Plainfield I packed my grips and here I am. I've been here a few days, and I never felt better in my life than I do now. It's the Battle Creek Sanitarium and the Battle Creek Sanitarium system that I'll stand for after this."

DR. J. T. SIMMONS, stockholder in the Simmons National Bank, Citizens' Bank of Pine Bluff, Ark.; also owner of several thousand acres of cotton, and considered the wealthiest man in Arkansas: "It would possibly take a book to hold all the good things that I might say about the Battle Creek Sanitarium and the Battle Creek Sanitarium system. Since coming here in a bad state of health several days ago, I'm beginning to feel like myself again. It's certainly the best place I've struck yet, and I'm coming again."

"I'm proud to say that I'm the biggest crank the Battle Creek Sanitarium has got," asserted CHARLES H. OWEN, of Pine Bluff, Ark., Arkansas representative of Smith Bros.' wholesale grocery house at New Orleans, known throughout the state, and who has recommended more persons to the Sanitarium than any one else. "Praise for the Battle Creek Sanitarium and the system is beyond words. I know what it has done for friends of mine who, when they left home, were given what was thought to be the last farewell kiss and given up for dead. They came to this institution and to-day they are alive and as well as anybody. I myself, my friends will tell you, am a walking advertisement of this institution."

THOMAS CORNELIUSON, dairy division of the Bureau of Animal Industry of the United States Department of Agriculture, of Washington, formerly of Madison, Wisconsin: "People outside, I mean those who have never visited the Sanitarium, can not possibly imagine what this institution really is. It's a wonderful place. I have more faith in Doctor Kellogg and this Sanitarium than you would care to print. It's the greatest and best institution of its kind I have ever seen or ever hope to see. Whenever I have any ailments I'm coming to the Battle Creek Sanitarium—in other words, the Battle Creek Sanitarium for mine."

H. W. GLOVER, traffic manager of the Virginia, Carolina Chemical Co., and the Southern Cotton Oil Co., of Atlanta, Ga., and formerly traffic manager of the Seaboard Air Line: "Do you know, I honestly believe this is a wonderful place—yes, even more wonderful than people who recommended the place to me described it. And when they said what they did I thought they were exaggerating. I only hope that my improvement is as marked in the next few days as it has been in the past. When I go back home I hope to describe the institution and the system in the glowing terms that it deserves."

"I never dreamed that such foods as we get here could work such wonders," asserted Rev. Dr. C. A. BERGER, of Red Oak, Ia., during an interview Sunday. "Protese is wonderful, and Yogurt equally so."

"The cool nights, with excellent rest, good meals, and the best of treatment have united in making a complete change in my health," declared GEORGE C. HAERLE, of Indianapolis.

DOCTOR HARMON, medical director of the U. S. Navy, at Cambridge, Maryland: "The surgeon-general of the United States Navy thought so much of this place that when he became aware of my condition he recommended that I come to the Sanitarium at Battle Creek. He had been here and knew what it had done for many. And I find everything just as he described it. The food is the most delicious and tasty that any person could possibly want, and the treatments are working miracles with me. There is one thing I like about the food, and that is that you know it is clean and wholesome, which you can not say of all foods."

"How well I like this institution and its system is shown through the fact that my wife and I are here to stay a month," declared D. MCKINDRY, chairman of the board

of directors of the Oklahoma State Telephone Company, Oklahoma City. "We have been here and there throughout the whole country, but I have yet to find a place that suits my ideas and health as does the Battle Creek Sanitarium."

NICHOLAS ESPENSCHIED, Jr., son of the retired millionaire New York hat merchant who for fifty-two years was a leading hatter of the great metropolis: "Not for the world would I be without Doctor Kellogg's book on home medicine. There are other books that he has written that I certainly wouldn't be without, either. I believe in this Sanitarium and its diet system. Already there has been a marked improvement in me and I would like to say much for the place. To tell the truth, I had so much faith in it that I gave up one month's visit to the finest summer resort in the world to come here."

ELECTROTHERAPY

(Continued from page three)

tivities that have been permitted to become weakened.

Mention has been made of the X-ray department of the institution, but it would require an extended article to describe it, and much would then be unintelligible to the average reader, for only experts understand the terms that would have to be used. Suffice it to say that there are not in existence to-day over half a dozen outfits so complete and up-to-date as that which has been recently installed in the Sanitarium. Thousands of dollars have been expended in making it as complete as possible, and the results which are being realized from it day by day fully justify all the pains that have been taken. Dr. James T. Case, who is in charge of this department, has taken the utmost pains to inform himself in regard to the very latest discoveries in this line and keeps fully abreast with its developments.

THE BLOOD-PRESSURE


(Continued from page one)

umn of mercury, the height to which the column of mercury is pushed up indicating what we call the blood-pressure.

The Normal Blood-Pressure

is supposed to be 95 to 115 or 120 milligrams of mercury. It varies at different times in the same individual. An individual may have a variation of from five to twenty milligrams at different times during the day.

Sometimes people measure the blood-



PROPER BODY BALANCE

To be sure that the building up process going on in the body equals or exceeds the breaking down process, requires scientific feeding.

Do You Know How

to plan a scientific diet for yourself—a diet that will keep your body in "fighting trim"? If not let us assist you.

Write for our free book
"Healthful Living."

THE KELLOGG FOOD COMPANY
Dept. P-5 Battle Creek, Mich.

COUPON

Send Us the Names

of interested friends who you know would like to have the information contained in the **BATTLE CREEK IDEA**, and we will send them free of charge a few sample copies. Simply write their names and addresses in the blank spaces below, cut out the coupon and mail to us, and we will send the papers.

NAMES

ADDRESSES

pressure very precisely, and feel much disconcerted if they find it has varied five or ten milligrams; but it is perfectly normal that it should do so. You must remember that the body is not built like a water main in the city, of stiff iron pipes, and everything of metallic rigidity; but the body is made up of elastic tissue which is able to adjust itself to varying conditions. When one gets excited and there is a tendency of the blood to run up, the elasticity of the walls of the

arteries allows them to stretch a little bit and keep the blood-pressure regular.

The Reason Why it is Essential

that the blood should be at a normal pressure, is because it takes just about that amount of force to send the blood out into the fine capillaries of the body. We have a large blood-vessel in the center of the body,—the aorta,—about the size of a baby's wrist. From that the blood-vessels branch and sub-

divide, becoming smaller and smaller until they are so fine that they can not be seen with the naked eye. The white of the healthy eye looks perfectly clear, and yet it is covered with minute blood-vessels, little arterioles through which the blood is being forced by this pressure of 95 to 115 milligrams of mercury that is back of the column of blood; and yet it never becomes visible unless the eye becomes congested. So it is in the brain, and in the kidneys, and in the tissues of the lungs; these very fine arterioles are carrying the blood supply in such fine columns that they are invisible to the naked eye, and the wall of the blood vessel is so thin that there is an interchange of gases between the blood and the air in the lungs as it comes to the surface in that delicate tissue.

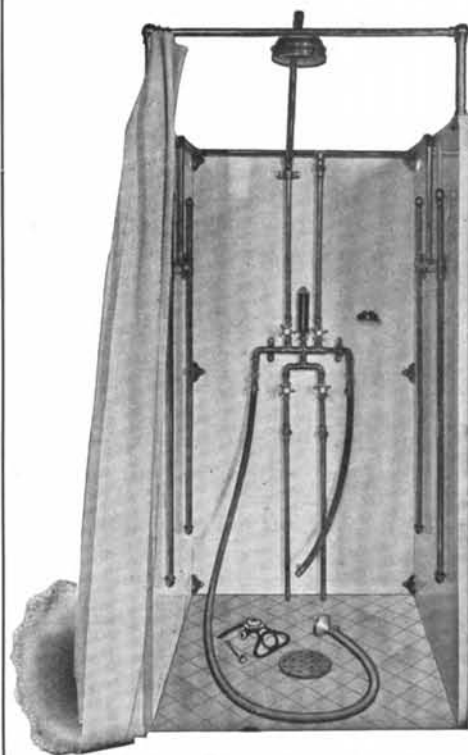
If for any reason the blood-pressure goes up higher than the normal, these delicate arterioles, which are so small and have such a thin wall, will close themselves down in self-defense; the column of blood can not pass through their lumen at a greater pressure than 115 or 120 milligrams without doing damage, so they close themselves down. The result is that with high blood-pressure some of the brain-cells, and some of the cells of the lungs and of the kidneys fail to get proper nutrition, and the tissues become impaired on that account.

The blood-pressure has for a factor

The Force of the Heartbeat,

the force at which the heart is pumping the blood through the arteries. The larger arteries of the body are beating and throbbing just the same as the heart, and pumping the blood along, forcing it through the circulation by the muscular action of the arterial walls. Most of the walls of the arteries have longitudinal muscles which pass lengthwise of the artery, and also circular muscles which pass around the artery. These muscles contract and force the blood along in a manner somewhat similar to the way in which food

"The Greatest Thing in the World"



¶ You have still to enjoy the greatest thing in the world if you are not yet taking a cold shower—rain, needle, or spray—every morning. Nothing in all this wide world can equal it as an eye-opener, appetizer, and invigorator. It makes you all aglow with that fine feeling that life is worth living.

¶ Would you pay a hundred dollars to enjoy this luxury in your own home every day for the rest of your life? It sounds incredible, but that is really all you have to invest to secure the KELLOGG HOME DOUCHE, which can be installed in your own bathroom, ready for immediate use at your own pleasure.

¶ With your hand in easy control of the water valves, you can take your choice of the shower from above, the needle spray from the sides, the ascending douche from below, the jet or the spray from any position—or combine any and all to suit your royal will, at any temperature you can stand, cold or hot. Truly a royal treat, to say the least.

¶ The Kellogg Home Douche gives you in a more convenient form practically the same advantages as the

celebrated Kellogg Douche Apparatus now in use everywhere in sanitariums, hospitals, treatment rooms, gymnasiums, etc. And the Home Douche dispenses with the attendant—you operate it yourself, and get as good results.

¶ And if you use it daily, you may steer clear of the day when you have to go to a sanitarium to get water treatment as a cure. Get it now as a preventive—in your own home.


PRICE:

The Kellogg Home Douche Apparatus, complete with attachments for Spray, Fan, Jet, and Ascending Douches	\$100.00
Duck Curtain and Curtain Rod, extra	10.00
Three Kiln-dried Hardwood Slabs with wood basin and floor drain (the wood basin is to be filled in with cement by your mason), extra	35.00
Good Health, Slate Slabs, each, extra (wood slabs just as serviceable)	15.00
Battle Creek, Marble Slabs, each, extra	35.00
Mich.:	

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Good Health Publishing Company

Battle Creek, Michigan



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Constipation

comes from its water-holding properties. It slips through the intestine, carrying away the bacteria and poisons.

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THE KELLOGG FOOD COMPANY
Dep't D15 Battle Creek, Michigan

is forced along in the intestinal tract, only not with such a marked contraction.

The Elasticity of the Walls of the Artery is another factor in blood-pressure. That elasticity may be impaired by the nervous control of the muscles themselves, so that the muscles become rigid and do not react. You have seen people go into the gymnasium and start in with the marches in a very stiff-legged manner; but they go through the drills until they get limbered up. Some of the arteries get stiff and they need to get limbered up.

When these muscles are stiff because the nerve control is not properly balanced, there will be an increased pressure in the arteries without any real physical damage being done to the walls of the artery. That is what is called the presclerotic period. Then we may also have an interference with the blood-pressure from an actual stiffening of the walls of the arteries, because the muscles have been allowed to go on in an inelastic condition for some time, and the wall actually becomes stiffened and may be likened to the metallic pipe; then, of course, the blood-pressure becomes permanently high. That is called a condition of arteriosclerosis, and in this case you have high blood-pressure. I think that will make sufficiently clear the nature of blood-pressure and its significance.

ARRIVALS

THE list of arrivals at the Battle Creek Sanitarium for the week ending July 23 is as follows: Frank L. Taylor, Ill.; Mr. and Mrs. C. C. Field, N. Y.; Mrs. W. D. Reeves, Ark.; Mr. and Mrs. M. Kruzrak and Harry and Ettie Kruzrak, Miss D. Margulies and Mrs. Margulies and Miss Helma Hedden, N. Y.; E. ward, Mich.; Max L. Weill, N. Y.; Mr. and Mrs. C. C. Groosbom and child, Ky.; Mrs. Morris Meyer, Ala.; Miss B. Blumenfeld, Mrs. Jas. H. Smith and Mrs. Jas. Ward, Miss.; Mrs. M. A. Hansen, Ill.; Mrs. F. M. McReil, Ga.; Monroe H. Morrow, Mich.; Mrs. B. F. Stout, Tex.; Dr. F. A. Phillips, L. J. Mouks, and G. A. Baden, wife and child, Mich.; Miss Gertrude Hinners, Minn.; Mrs. Silas H. Wright, Mo.; Avery Brush and Laura Brush, Ia.; Mrs. B. E. Witte and daughter, Tex.; Lamar Jones, Ga.; Mrs. Jno. L. Morgan and Miss Ada Hayes, Ind.; I. Lent and wife, Mo.; Thos. A. Robinson, Ark.; Mr. and Mrs. F. W. Keller, Ind.; Mrs. B. C. Reeve and Miss M. H. Edgar, N. J.; Mrs. L. P. McCullough and Mr. and Mrs. W. J. Scarlett, O.; Mrs. Lee E. Brown, Mich.; C. F. Whisler, O.; Mrs. C. A. Barber, Chicago; M. A. Stedman, Jr., and R. F. Simpson, Jr., Tex.; Mr. and Mrs. Jas. M. Hayes and Mr. and Mrs. John A. Payne, Ill.; Miss Edna Richardson, Tenn.; Hugh F. Means, O.; H. C. Tyrrell and wife, Okla.; Mr. and Mrs. Callaghan and daughter, Chicago; Mrs. J. C. Clutts, Detroit; Mrs. E. G. Ragan and Ada May Ragan, R. E. Scott and W. P. Williams, Ind.; Louis A. Salmons, Mex.; C. B. Wathy, Tex.; Chas. Wolohan, Mich.; Miss L. E. Rector, New York City; John Duygan, wife and boy, Pa.; Marlat Barber, Ill.; Mrs. G. Wort, Miss.; R. V. Covington, wife and son, Fla.; H. A. Zeisel, Chicago; J. N. Reed, Mich.; J. H. Lathé,

Ia.; Jacob Lobensky and Joseph Lobensky, Mich.; Mrs. E. M. S. Fernandez, Chicago; Mrs. L. Stern, Miss Stern and Wm. Stern, Ill.; A. B. Moseley, Chicago; Mrs. H. A. Robinson, Ind.; Geo. Schermerhorn, Mich.; Adam Reimond, O.; E. N. Broyles, Ga.; Wm. Burtless, Mich.; Hamilton Borden, Chicago; Mrs. E. J. Dunn, Undine Dunn and Damon Dunn, Ill.; J. H. Losater, wife and son, and Miss Maude Norid, Tenn.; E. J. Fithian, Leita M. Fithian, and Mr. and Mrs. J. E. Marshall, Pa.; Chas. Heillon, Tex.; Mrs. I. J. Miller, Cincinnati; F. E. Browder, Minn.; G. E. Davis, Ia.; F. R. Clark, O.; Mrs. C. C. Fluharty, W. Va.; B. N. Soverel, N. J.; Victoria D. Richardson, N. Y.; P. G. Padgett, W. S. Boyd, M. D., and M. McMillan, S. Ca.; Geo. Parker, N. Y.; G. O. Berger and wife, Ia.; Miss M. Wildman, Ala.; E. E. Martin and wife, Cleveland; R. A. Tarry, Mo.; Ambert J. Hartzell and W. T. O. Bivin, O.; G. Childers, wife and child, Tenn.; Mr. and Mrs. J. J. Newberry, New York City; A. M. Wilson and wife, Ark.; Mrs. Gaines, Cincinnati; Henry Schafer, O.; Mrs. Jacob Alexander, New York City; W. J. Bowlby, N. J.; Mrs. Julia Stone, N. Y.; Mrs. Alta N. Davis and A. W. Nickle, Ill.; Mrs. J. C. Lovell, B. C.; Mrs. B. E. Cole, Boston; Roy E. Layton and F. C. Ludwig, W. Va.; Roy E. Layton and F. C. Layton, O.; W. F. Fruke, Ia.; John R. Malloy and wife, Mrs. John Pero, May C. Naughe and Wm. C. Kennedy, O.; J. K. Williams, Tenn.; Mr. and Mrs. Henry A. Hess and Andrew C. Hess, W. Va.; R. C. Phillips and daughter, O.; B. Hoffman, A. R. Hoffman and M. R. Hoffman, Pa.; Geo. C. Haerle, Indianapolis; H. H. Holland, Va.; Mrs. M. Frank, New York City; C. M. Jacobus, O.; Jno. Sterling, Miss S. B. and Miss M. B. Sterling, N. Y.; F. R. Clark, O.; A. H. Kreiling, Chicago; Mrs. A. Goodholm, Okla.; Mrs. Alex. Wright, Ky.; Miss Ellen S. Allyn and Miss Louise H. Allyn, Conn.; H. O. Wolf, Ark.; D. E. Keough and wife, W. Va.; Juanita Gordon, Mich.; V. S. Barker, S. Dak.; R. H. Matthews, Tenn.; Gertrude Hinners, Minn.; Mrs. C. H. Bonbright and Mrs. V. F. Newell, Mich.; Mrs. Geo. Hatt, Philadelphia; Mrs. W. Gilmore and sister, D. C.; E. P. Pirtee, Ariz.; W. L. Thompson, O.; N. Swinson, Kans.; F. C. Duffy, City; E. H. Racine, Miss.; Bertha Lacoek, P. R.; Mrs. David H. Shields, Ill.; Mrs. W. F. Amberg, Mrs. A. Y. Scott, Tenn.; R. E. Hieronymus and wife, and Myrta Pearson, Ill.; E. H. Kirk, Ethel M. Kirk and Mrs. S. M. Kirk, Ohio; Carrie Haines, Ia.; Mrs. W. C. Tucker, Okla.; Chas. S. Powell and son, Chicago; Hannah Tolbert, S. C.; Mrs. Mina R. Southgate and Miss M. E. Southgate, Ala.; Mrs. Peticoles and son, New York City; L. W. Duncan, Okla.; Clarence Julian, Ky.; I. A. Crenshaw, Fla.; D. and Mrs. A. C. Stanley and Miss Myrel Stanley, Mo.; W. B. Ransome and wife, Tex.; Mrs. S. E. Anthony and Miss Ada A. Rice and Percy Rice, Tenn.; J. M. Conger and wife, and Miss Desmerker, Miss.; F. B. Ziegler, Okla.; Miss Grace Trembley, Detroit; R. S. Taylor, Ind.; C. C. Fissette and wife, Ont.; Ben Rothschild and wife, Ind.; C. M. Doeschner, Mich.; Mrs. V. O. Ford, Tex.; Peter M. Fries, Chicago; M. O. Callaghan and G. E. Golvin, O.; Mrs. J. L. Fuelkney, Mex.; Elizabeth Elson, Boston;

A. T. Potter, Indianapolis; Jos. Sheldon and Jos. S. Bolten, Conn.; F. L. Chambon, Pa.; P. S. Norris and Miss Anna Norris, O.; Miss Gregory, D. C.; Mrs. F. C. Badgley, Mich.; C. Jenkins, Chicago; B. W. Jenkins, Cincinnati; Mrs. J. S. Williams, Tenn.; Tom Lovell and wife, and Miss Annie Lovell, Tex.; W. J. Richards, Indianapolis; M. C. Warren, Neb.; Mrs. E. H. Easterly, Chicago; W. A. Potter, Minn.; Dr. R. H. Nelson, Mich.; Mrs. Nora B. Lowry, Detroit; Louis C. Miller and wife, Mich.; Mrs. Maynard Garner, Mo.; H. W. Gilbert, Tex.; Dr. Herman Shuhe and Dr. O. S. Shube, Cleveland.

News and Personals

Avery Brush, a prominent banker of Osage, Iowa, is back with us again for the third time. Mr. Brush has great faith in the system at the Sanitarium.

Rev. William J. Scarlett and father, of Columbus, Ohio, are among this week's guests. Rev. Mr. Scarlett is pastor of the First Presbyterian church in Columbus.

Judge L. J. Monks, justice of the supreme court, of Winchester, Ind.; Judge Brown, of Tennessee; and Judge R. S. Taylor, of Fort Wayne, Ind., are among this week's guests. Judge Taylor has been here before.

Goguc Lake has proved an interesting resort for Sanitarium guests. There is plenty of fishing, boating and picturesque scenery. The Sanitarium has a pretty villa on the shore of Goguc, which has had its share of guests since the opening of the season.

It is the opinion of Miss Jessie Marriott, missionary in Tukien province, South China, who is a guest at the Sanitarium, that large men should never be made bishops over the missionary stations in China. She holds that they are too heavy for the coolies to carry around from place to place.

Several of the best-known stamp collectors in America dined at the Sanitarium Sunday as the guests of Edgar Nelson Bradford, of New York City, Meridan, Conn., and Battle Creek. It is understood that there is a coming merger in the stamp business in the United States and France.

Prof. W. A. Hennig, of Washington, accompanied by his wife, is visiting his brother, who is a patient at the Sanitarium. Professor Hennig gave a very interesting address to the Sanitarium Sabbath school, on the Maoris of the South Sea Islands, among whom he labored for some years.

Two University of Texas students, R. F. Simpson, Jr., and N. A. Stedman, Jr., both of Austin, Texas, who were recommended to the institution by Judge E. R. Meek, of Dallas, were among last week's guests. Mrs. R. F. Simpson, mother of the former, was a patient here twenty-three years ago.

One of the most interesting characters at the Sanitarium this week is Mrs. Mary C. Mead, of Brooklyn, N. Y., who, despite her eighty-six years, is taking up a course of studies in ancient languages, more particularly Greek. Mrs. Mead delights in conversing with the missionaries. She is a well-versed Bible student and is known around the institution as the "grand old lady."

We have grown used to watches in various guises, from the tiny pendant not bigger than a locket to the timepiece in an umbrella handle, or set in a cardcase or bracelet. The latest in watches, however, is worn by a lady guest at the Sanitarium. It is an enormous dragon fly in glittering gold, studded with jewels, with a tiny watch hidden under one of its wings. This is worn as a pendant.

Crop guessing has become a favorite pastime among the Southern gentlemen at the Sanitarium this week. They all appear to be pretty optimistic and are hopeful for a bumper year. Reports from the district around Grand Prairie, Arkansas, to the effect that never before in the history of the Arkansas rice industry has there been better prospects for a good crop than there is at the present time, has caused more than one Southerner visiting here to be happy.

A national movement against smoking in public places, that is to say, inclosed public places, such as halls, depots, street cars, stores, hotel lobbies, elevators and so on, has been organized in New York under the name of the Nonsmokers' Protective League of America. Cigarettes did it. The feeling of the non-smokers was not so strongly marked in the days of the cigar and pipe, but when the cigarette crowded in, demanding the same privileges, antipathy toward smoking grew apace.

Among the large number of our guests this week are W. A. Potter, of St. Paul, Minn., general manager of Bernhardt Bros. & Spindler Type Foundry; Prof. G. A. Parker, of the University of Syracuse; Joseph S. G. Bolton, of New Haven, Conn., Yale student; R. E. Scart, Anderson, Ind., jeweler; I. A. Crenshaw, Tampa, Fla., merchant; U. S. Barker, Scotland, South Dakota, retired produce dealer; and Tom Lovell, of Lovell & Sons, contractors and builders, Denton, Texas.

The outdoor gymnasium and swimming pool is rapidly approaching completion. This will be, when finished, one of the most complete and satisfactory outdoor exercise grounds in the world. The swimming pool is thirty-five feet in width and one hundred feet in length and the water reaches a depth of eight feet. High banks on one side of the pool furnish a fine gallery for spectators, who will have the privilege of witnessing the sports and contests which are frequently held at the Sanitarium. This will give a most complete outdoor athletic outfit for both the ladies and the gentlemen.

There appears to have been quite an influx of attorneys and physicians during the past

week. Among the former were J. G. Padgett, prominent attorney of Watterboro, South Carolina; W. J. Wallace, Lebanon, Mo.; L. E. Salmon, New York City; James E. Marshall, Butler, Pa., and L. C. Mieter. of Marshall, Mich. Among the physicians are Dr. W. S. Boyd, Salters Depot, S. C.; Dr. C. C. Fissette, Brantford, Canada; Dr. A. C. Stanley, Tiller, Ark., who was here last summer; and Dr. David Moury, of Atlanta, Ga., who made his first visit to the Sanitarium some thirty years ago, at the time when Doctor Kellogg and Doctor Fairfield were the staff.

A very pretty birthday party was given on the lawn at the Sanitarium Kindergarten Summer School on Friday afternoon, by Mrs. Brooks, of Houston, Texas, in honor of her little daughter Edwina, who celebrated her seventh birthday. About thirty-five little guests were present, all of whom were the children of guests and patients staying in the Sanitarium and members of the Kindergarten. The tables were prettily decorated in pink and white, and the refreshments were provided by the Sanitarium School of Cookery. Mrs. Brooks was assisted by Miss Daisy M. White, superintendent of the school, and her assistants. Numerous games were played during the evening, and a huge grab-pie brought to a conclusion a very happy party. Mrs. Brooks is a frequent visitor at the Sanitarium and an enthusiast as to its principles.

Professor Hieronymus, of Eureka College, Illinois, who is with us again for a short visit, addressed the patients on the subject of the Passion Play at Oberammergau in 1910. On Sabbath morning he gave an address in the Sanitarium chapel. Speaking of the awakening of "social consciousness," which is, perhaps, the most striking movement of our times, the professor mentioned as one phase of it the growing interest of the nations in the general health of the world. International Congresses on Tuberculosis, Plague, etc., are an outgrowth of this development, which is, after all, but a necessary measure of self-protection, as the present cholera scare in New York, resulting from the epidemic in Italy, clearly demonstrates. The number of missionaries who gather at the Sanitarium and absorb its teachings with regard to healthful living and the natural methods of treating disease, are an important factor in spreading the light of health reform to the ends of the earth.

Southern guests and especially planters are exuberant over the government report upon the cotton crop which carries as a result the prospect of a yield of 14,425,000 bales, the largest amount ever even estimated for the United States. If it brings to the South approximately \$900,000,000, as there is every indication such a crop will realize in view of the exhaustion of supplies at the mills at home and abroad, it means such an enrichment of the people of the Southern States as will render that section hereafter financially independent. With the values of the various by-products of the plant combined with the value of the fiber, little short of the enormous sum of one billion dollars will be

the income of the Southern planters from the cotton plant alone this year.

Among those at the Sanitarium who hold heavy cotton interests in the South and expect to reap benefit from the financial harvest are R. A. Pickens, of Walnut Lake, Ark., and Dr. J. F. Simons, of Pine Bluff, Ark. Mr. Pickens' plantation covers an area of over 4,000 acres in cotton alone.

It was Cervantes who wrote: "Blessings light on him who first invented sleep. It covers a man all over, thoughts and all, like a cloak; it is food for the hungry, drink for the thirsty, heat for the cold and cold for the hot. It is the current coin that purchases all the pleasures of the world cheap, and the balance that sets the king and the shepherd, the fool and the wise man even."

But the best example of one who gets the most out of this universal blessing is ex-Congressman Lowden, of Oregon, Illinois, who will in all likelihood be the next Republican nominee for governor of Illinois State. Congressman Lowden was a visitor all last week at the Sanitarium. He is a believer in sleep—and sleep he does. The old saying that "early to bed and early to rise makes a man healthy, wealthy and wise," can not always be taken as a criterion. Surely not in the case of Congressman Lowden. The "early to bed" part suits him well, but when it comes to "early to rise"—well, that's a different matter, for the ex-congressman from Illinois, while at the Sanitarium at any rate, believes that ten o'clock is early enough for any man to rise.

Men of the strongest minds need relaxation. The bow can not always be kept bent. If it is, its elasticity is irretrievably injured. Like the bow, the human mind must be relaxed from time to time to allow it to recover its strength and tone. It is interesting to note the amusements of learned men. A man's habits and relaxations help us to understand him and are the best evidences of his real character. Many great men have delighted in passing their hours of relaxation with children. This usually denotes a loving disposition and a pure heart. At the Sanitarium to-day as a guest and patient we have a fine example of this latter type of gentleman—Major James D. Richardson, grand commander of Scottish Rite Masonry in America, the highest Mason in the world, and author of "The Messages and Papers of the Presidents," which is recognized as one of the most useful books in President Taft's library to-day, and also of "Messages and Papers of the Confederacy." Major Richardson loves children. It is quite common to see him take his morning paper, go out on the Sanitarium lawn with the evident purpose of perusing the contents of the sheet, but barely get into an article before his attention is riveted to small children, laughing, joking, and playing here and there about him. He takes as much interest in watching their innocent play as he would if he were contesting in a warm game of golf or thrashing out business affairs in his office in Washington. And the only objectionable part of the play to him is when they commence squirting water from water pistols into each others' faces.

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The Cold Bath

How It Strengthens the Heart, Increases Lung Capacity, Aids the Digestive Functions, Improves All the Vital Forces—
Told in Lecture by Dr. W. H. Riley

THE body has within itself the power of recuperating its depleted forces and of maintaining health. The healing power is within the body itself, and never without. Therefore, when one is sick, there are only two lines along which the doctor or nurse can work for his recovery. The first is the im-

(Continued on page three)

THE SANITARIUM KINDERGARTEN

How the Children Are Entertained and Instructed While Their Parents Rest and Take Their Treatments

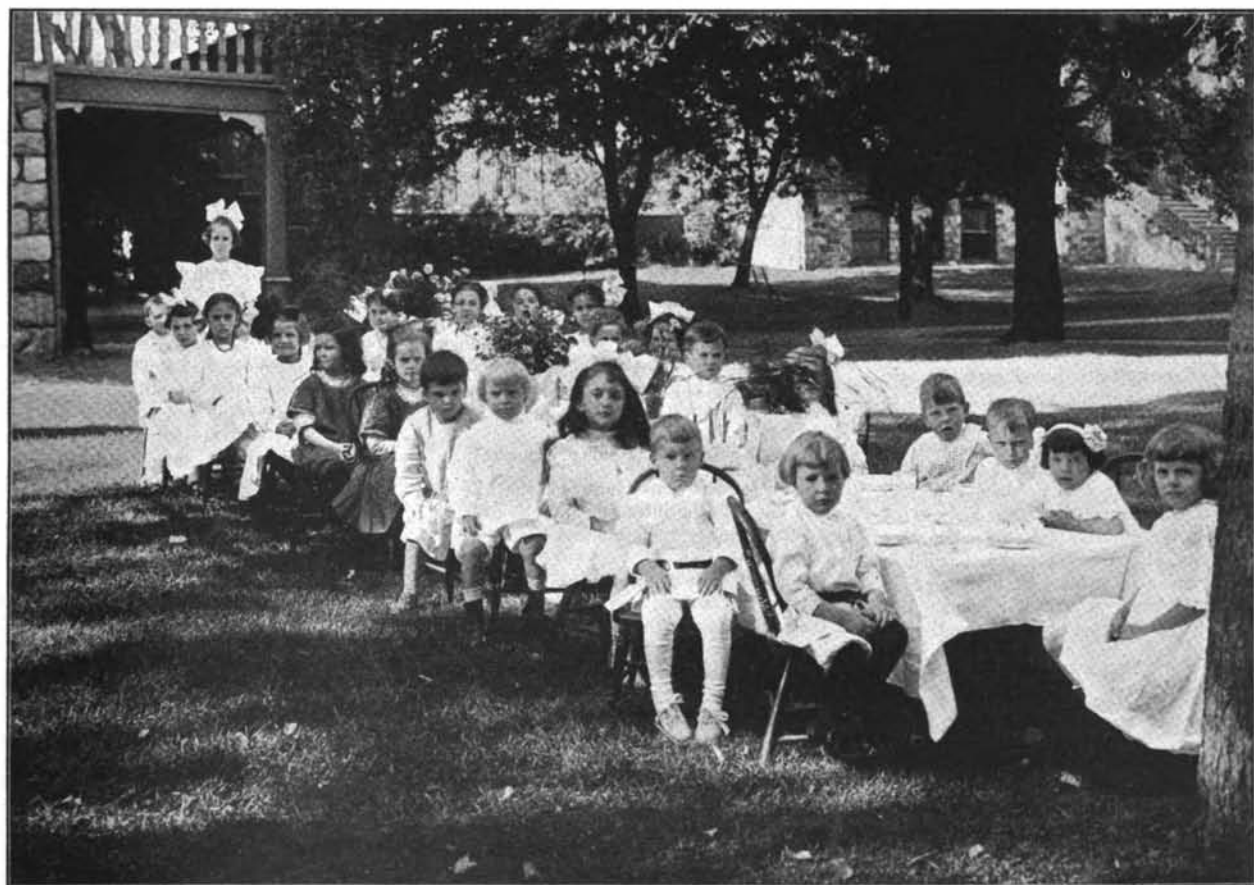
THE Sanitarium Kindergarten and Summer School is now in full swing, and it may interest patrons to know something about how the school is conducted and its aim. It meets perhaps one of the greatest needs of

(Continued on page two)

Deep Breathing

Dr. J. H. Kellogg Explains Its Effects on All the Vital Organs, and Tells How an Ex-Consumptive Walked Up to Health

THE heart is the great central engine of the body. Looked at from an anatomical standpoint, it is simply a hollow muscle, containing four cavities,—two ventricles and two auricles. The auricles receive the blood and the ventricles send it out. The venous blood goes to the right auricle, thence to the right ventricle; it is pumped up to the lungs



A BIRTHDAY PARTY IN THE KINDERGARTEN

for purification, goes back to the heart purified, and is then pumped out again through the aorta.

This great living pump is not under the control of the human will. We can not make the heart beat slower or faster. There was an Englishman some time ago who actually had the power to control his heart, and he went around exhibiting this peculiarity. But one day he stopped his heart a little too long and was not able to start it again. That was the end of the exhibition. It is fortunate for us that we are not able to control our hearts. It might be equally fortunate if we had as little to do with our stomachs.

The heart goes on working faithfully, beating sixty or seventy times a minute, and each contraction requires an impulse, a command. When your hand strikes it must receive an order from the mind, the will. The heart also receives an order from the will—not the human will, but the will of the Being that made us. In the presence of this acting heart, working while we sleep as well as while we are awake, we have an evidence of the presence of the Power that made us still dwelling in our bodies, directing their operations.

The Business of the Heart

is to pump the blood around the body. There are various depots established in the body where nutriment is stored up to be used as needed, just as the government stores up gunpowder in various magazines for use in time of war. For instance, there is a certain amount of explosive material stored up in the muscles, and every muscular movement is an explosion of some of the energy that has been stored up there. In the brain, the stomach, the liver, in every working organ of the body, there is material stored up which can be converted into energy. The purpose of the heart is to replenish this store of energy by circulating the blood. The blood is a sort of traveling market which distributes the food that we take into our stomachs. If it is good food, well digested, it is taken into the blood and sent around to all these different depots to be deposited for use as required. It is

The Duty of the Lungs

to carry off out of the blood carbonic acid gas and certain volatile poisons formed in the body that escape with the breath. When fuel is burned in the stove, the gas goes out through the chimney. A bushel of potatoes burned in the stove will produce a certain amount of smoke and a certain amount of gas. When the potatoes are eaten, the same thing results. Food is fuel; it is burned in the body, and a large part of it goes off in this gaseous poison through the lungs. But if we allow our lungs to become inactive, if we sit about with our shoulders drooping and our chests flat, and the lungs acting only half as much as they should, the result is that these poisons accumulate in the body. That is the situation of the stove when the damper is turned and the smoke is not allowed to escape up the chimney; it accumulates in the room, and we can smell the odor all through the house. The lungs are

The Great Ventilators

of the body, carrying off these poisons from the blood in enormous quantities; it is there-

fore very important that they should be made to act properly.

When coal or wood is burned in a stove, some of it remains behind in the form of ashes. When I visited Jerusalem many years ago, there had recently been uncovered on the site of the old Jewish temple a place underneath the altar where the beasts were burned. Sometimes 20,000 beasts were burned on that great altar in one day, so there must have been an immense quantity of refuse. Underneath the altar there was a large room, and from that room a great sewer went down through the side of the mountain and through the valley down below. Streams of water were brought up there, and when animals were burned and the ashes were raked down into the room below, a great torrent of water washed them away through the sewer. This illustrates the process that goes on in the body. The greater part of the food is converted into gaseous poison and passes off from the lungs; but a certain amount remains behind as ashes. The same material that is left behind when the food is burned in the stove is left behind in the body when the food has gone through the process of assimilation. These alkaline poisons are dealt with by the liver and the kidneys; it is the duty of the liver to render these substances soluble so that they can be carried off through the kidneys, which are a flushing arrangement.

Between the liver and the lungs is the diaphragm, which might be called

The Piston of the Pump.

The diaphragm moves up and down and pulls the air into the lungs and pushes it out again. It is a sort of double-acting pump. When the diaphragm goes down it compresses the liver and forces the poisons out into the blood, and the blood goes on up to the lungs to be purified, then back to the heart to be distributed again. Underneath the liver is the gall-bladder, which is full of bile. When the diaphragm comes down and compresses the liver and the gall-bladder, it forces the bile out of the gall-bladder into the intestine so it can find its way out of the body. The breathing process pumps air into the lungs from above and draws the blood up from below. But that happens only when we take a deep breath and

Give the Liver a Hearty Squeeze;

the blood is then forced onward, the bile is forced out into the intestine, and the liver is freed from its accumulation and is ready for more work.

The heart is between the lungs, and the expansion of the chest cavity dilates the heart at the same time as the lungs. This suction influence draws air into the lungs, and draws blood into the heart from the veins; so deep breathing exercises aid the circulation of the blood. If you feel that your blood is stagnating and you are dull and stupid, take deep breaths for a little while and see how wonderfully it will sweep away the cobwebs from your brain. A person who has a torpid liver or a slow stomach, or any sort of chronic disease, ought to practice deep breathing regularly and systematically.

A man came to this institution thirty-five years ago with consumption, and there was

not one chance in a hundred that he would recover. He said to me, "I am going to get well; I simply want you to tell me what I am to do." He was a clergyman and had been a student and had given no attention to the cultivation of his physique; consequently he was very flat-chested. I told him to put a cane behind his arms so as to keep his shoulders back, and then walk in the open air, taking just as deep breaths as he could. At almost any time between sunrise and sunset I could look out of my window and see that man walking up and down with his arms pinioned in that way, with his chest well out, taking deep breaths. He was making a business of

Walking Up to Health;

and he did it. His temperature, which was 103° F. when he came, in three months came down to normal; his pulse was reduced from 120 to 70. His cough almost disappeared, and the cavity in his chest appeared to be healing. For years after he went away he used to write to me, and be always signed his name, "George Tompkins, E. C." The first time he put in a foot-note explaining, "E. C. means ex-consumptive."

It was that man's deep breathing that helped him more than anything else. There is nothing that is more worth while for you to attend to than that one thing, deep breathing, because it strikes right at the root of things. It helps the heart, the lungs, the liver, the stomach and the bowels. Anything that helps the heart helps everything in the body, because the heart is the great central engine that distributes energy throughout the body and keeps the whole machinery going.

KINDERGARTEN DEPARTMENT

(Continued from page one)

the Sanitarium in caring for and providing entertainment for the children while the parents are engaged with their various treatments.

The children assemble at nine o'clock and are dismissed at 12:45, returning at 2 P. M. and remaining until 5:30. This takes them away from the Sanitarium all day, thus keeping the building quiet and enabling the parents and other patients to rest.

Weather permitting, tables and chairs are brought out on the lawn and all the work is done out of doors. There is the usual kindergarten work for the little ones, and for the older children sewing and cookery classes, swimming, gardening, etc.

A well-equipped playground has been added to the other attractions this year, affording splendid exercise as well as pleasure.

The Kindergarten Department is under the capable superintendence of Miss Daisy M. White, of England, who has been associated with it for five years, for four of which she has been in full charge. Miss White is assisted by Miss Sagel, a school teacher of Ohio.

Terms are only one dollar per week. The school closes about the last week in September.

No home is flawless until it is flyless.

THE COLD BATH

(Continued from page one)

provement of the vital forces of the body,—the breathing and digestive capacity, etc.; the second is the removal of obstacles. For example, there may be poison interfering with the normal functions of the body, as when a man is addicted to the use of morphine. Take away the morphine, and the blood-cells will bring healing. If a bone is broken, all that the doctor can do is to bring the parts together, make the conditions favorable, and Nature does the restoration.

One of the most effective measures for

Improving the Vital Forces

is the cold bath. This is taken, not for cleanliness, but for its stimulating effects upon the system. When we take a cold bath we make an impression on the skin, and that impression is transmitted by the nerves to the organs of the body. The tonic effect is due to the cold, which stimulates the nerves in a normal way, and not to the water, which is but the vehicle or medium for conveying the stimulant. This stimulating effect is obtained only by the short cold bath, of from twenty seconds to two minutes duration; a long cold bath has a depressing effect.

The cold bath increases the force and lessens the rate of the heartbeat. It increases the blood-pressure in a normal way. It is true the pulse can not be so readily felt after the bath, but that is because the arteries have contracted, and not because the heart is weakened, for the increased blood-pressure is due to

The Strengthening of the Heart.

Increased blood-pressure is not necessarily due to hardened arteries; the increased pressure resulting from a strengthened heart is beneficial.

The cold bath increases the number of the red cells in the blood. This has been demonstrated by actual experiment, counting the number of the cells before and after the bath. This does not mean that the blood-cells are manufactured so quickly, but that they are brought into the circulation. If, however, the bath is continued regularly from day to day, the body is stimulated to make more cells, and thus there is an actual increase in the number.

The alkalinity of the blood is increased by the cold bath. This is a very important consideration, as in rheumatism and in nearly all chronic diseases the tendency is toward acidity, that is, to the diminishing of the alkalinity of the blood.

The improvement of the respiratory function is another important effect of the cold bath. It deepens the breathing, and this in time results in enlarged capacity. In some experiments that I made with young people, the girth of the chest was increased in some cases one and one-half inches in three weeks as a result of cold bathing. It also increases the circulation of the blood through the lungs. Blood does no good in any organ unless it circulates. Increased circulation means increased absorption of oxygen, which means increase of general activity. The cold bath

Increases Heat Production

in the body, which is normally a furnace. The heat-making power has been largely lost by many people, so that they can not go out into the cold air without wraps. There is no stimulant to heat production like the cold bath. As already noted, it increases the absorption of oxygen, and oxidation produces heat.

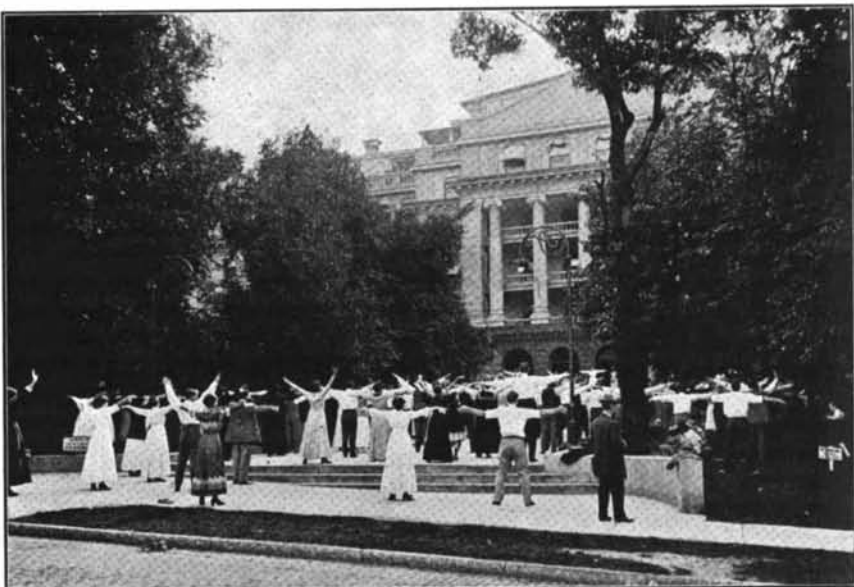
The cold bath improves digestion by increasing the secretion of the gastric juice. The muscular contraction of the stomach is also stimulated by it, and thus the activity of the stomach and intestines is increased. The muscles of the abdomen are toned up, and this helps to strengthen and replace weak and relaxed abdominal organs. Note the difference in the feeling of the arm before and after the cold bath. The muscles which before are soft and relaxed are afterward firm and hard. The short cold bath

treatments can be as exactly regulated with reference to the desired effects as can dosage with drugs. But water will do many things for the body that can not be accomplished by means of drugs.

The cold bath is the best tonic in the world. It is especially valuable in cases of neurasthenia and weak heart. The mortality in typhoid fever has been reduced from fifteen to five per cent by the introduction of cold water treatments.

THE FINAL WORD ON TUBERCULOSIS INFECTION FROM COWS

If further warrant were needed for the imposition of strict regulations upon the milk supply to lessen the danger of disease transmission, it is furnished by the report of the royal commission on bovine tuberculosis just



EARLY MORNING BREATHING EXERCISES

Relieves Fatigue.

This is demonstrated by the ergograph, an instrument which measures the amount of work of which a muscle is capable. It increases normal nerve irritability, that is, capability of being stimulated to action.

There are various forms of the cold bath, which may be modified to suit the individual and the circumstances: the wet hand rub, the sponge bath, the wet towel rub, the mitten friction, the spray, the shower, the douche, the sheet pack. It should not be taken when one is tired or cold, or when the feet are cold. In such cases it is best to take a hot bath first.

I hope I have made it clear that cold actually does something to the body, and does good. Experience has demonstrated these results. Some years ago I made a series of

Five Thousand Experiments

on young men, testing the results of every possible application of water to the body. Hydrotherapy is an exact science, and water

submitted to the English parliament. This commission has already made three reports on the subject, this being the final rendering of facts and recommendations after an investigation covering nearly a decade. The commission reaches the conclusion that tuberculosis is unquestionably transmitted from cows through the milk supply, and recommends the rigid enforcement of existent regulations to lessen the danger. It urges the exclusion from the food supply of the milk of any recognizably tuberculous cow, regardless of the site of the disease within the cow. The enforcement of such regulation calls for thorough organization and involves large expenditures, first, in clearing away all suspected cows; and second, in maintaining the proper system of inspection at dairies and over the distributing agencies.

You want enough flesh to keep you moving, enough fat to keep you warm, enough bone to keep you upright; anything beyond sufficiency means inefficiency.—Dr. Cohen.

The Battle Creek Idea

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AN ENTHUSIASTIC "SANDITARIAN"

Mrs. HENDERSON, of Washington, D. C., well known throughout the world as the wife of Senator Henderson, and a prominent society leader, as well as a generous entertainer, invented the word "sanditarian" to designate a person who lives in harmony with the principles which are promulgated by the Battle Creek Sanitarium. The term was adopted by the eminent Wu Ting Fang, one of Mrs. Henderson's converts and an enthusiastic disciple of Battle Creek Sanitarium methods, and is now becoming well known in China through the vigorous propaganda which is being conducted by Minister Wu, now one of the leading officials in the Chinese government.

In this country there can be found no more enthusiastic and loyal "sanditarian" than Mr. C. E. Buek, of Chattanooga, who recently spent a few weeks at the Sanitarium. Mr. Buek first came to the institution a few years ago, and in a short time made himself familiar with the principles of the institution, and after thoroughgoing investigation adopted them. On returning to his home, he established in his house a regular Sanitarium department, comprising an electric light bath, shower bath, photophores and various other appliances fitted up for him by the Good Health Publishing Company, duplicates of similar appliances in use at the Sanitarium. Mr. Buek has thus continued at home during the interval between his visits many of the methods of treatment applied to him at Battle Creek, and with wonderful advantage, as he is steadily gaining in health. At the present time he certainly presents an appearance very unlike that of a chronic invalid, but he has become so enthusiastic in the health idea that he is not satisfied with ordinary good health. He is determined to have all the health there is for him and to work the health line for all there is in it. No more faithful follower of Battle Creek ideas and diet could be found anywhere than Mr. Buek, and everywhere he goes he makes converts. Being both a fluent talker and a most convinced disciple, he is a very successful propagandist and has sent numerous

friends to the institution who have likewise been benefited by their contact with Battle Creek Sanitarium methods and principles.

In a brief interview reported in a recent issue, Mr. Buek, through an unfortunate error, was made to say that he had been living the simple life "surreptitiously," the very opposite of the truth. "Conscientiously" is the word which should have been used, for certainly of all men Mr. Buek would be one of the last to do anything surreptitiously, and no more conscientious or enthusiastic follower of the simple life and Battle Creek Sanitarium principles could be found anywhere.

Mr. Buek is one of the most successful business men of the South. Although possessed of an ample fortune, acquired in the iron industry, he has set an example of practical altruism in providing for the city of Chattanooga, where he lives, a model dairy which provides for the fortunate people of that city pasteurized milk and cream, an advantage which few cities of the South enjoy, and which will show its value in the saving of many thousands of young lives, to say nothing of the enormous amount of sickness and suffering of older people which may be saved. We are glad to learn from Mr. Buek that his enthusiasm for the principles of right living has reached so high a pitch that he has almost decided to so adjust his business affairs as to make it possible for him to devote considerable of his time to some branch of the work of race betterment, one of the greatest problems which our modern civilization has ever faced. It is most encouraging to see that the cause of reform has already achieved such a degree of success as to enlist the attention and the interest of men of keen minds, deep insight and high business standing. Surely the good cause of reform is making progress.

THE NORMAL SCHOOL OF PHYSICAL EDUCATION

UNDER the directorship of Dr. Wm. W. Hastings, the Normal School of Physical Education gave its midsummer exhibition in the gymnasium Saturday night. A great variety of work was presented. The exercises consisted of calisthenic drills, mat work, heavy apparatus work, Gilbert exercises, Chalif (folk) dancing, games, club swinging, wrestling, and an Athletic Pageant. The spectators were very enthusiastic and considered the exhibition a pronounced success. The work was exceptional in conception and execution and reflects great credit upon the instructors. The calisthenic drill, mat work, apparatus work and wrestling were under the able direction of Mr. W. E. Cann, Physical Director of the Y. M. C. A., Elizabeth, N. J. The games and Gilbert exercises were led by Miss Justine G. Wade, who has been with the Normal School since its founding in

the summer of 1908, and whose sympathetic work has won for her many friends among former students. The "Athletic Pageant" by G. M. Caskey presents an absolutely new conception of rhythmical work. Various forms of athletics were given to music,—shot-putting, baseball, canoeing, rowing, etc. This type of work is most vigorous and peculiarly adapted to the needs of men.

With the opening of the second half of the term four new instructors begin a number of new courses. Dr. Henry S. Curtis, of Olivet, Mich., National Playground Lecturer, a course in Playground Theory; A. B. Wegener, Physical Director Y. M. C. A., Duluth, Minn., courses in Gymnastic Nomenclature, Kinesiology and Heavy Gymnastics; Miss Edith L. Moodie, Physical Director, Women's Department, Ohio Wesleyan University, Swimming, Swedish Gymnastics and Orthopedics; F. E. Miller, Physical Director Y. M. C. A., Steubenville, Ohio, and author of the book entitled "Club Swinging and Juggling," teaches Club Swinging, Juggling, Games and Tumbling.

The enrollment in the Normal School has now reached seventy-five students as anticipated, and students are still coming in. The growth of the school has been unprecedented. No other school of the kind has attained such immediate popularity. We attribute this to the national reputation and efficiency of its corps of instructors and to the superior advantages afforded by the Battle Creek Sanitarium for study of the care of health.

CHATS WITH SANITARIUM GUESTS

OUR capabilities for usefulness depend very much upon our education. The matter of education includes our physical as well as our intellectual development. We often look upon education as the sum of our accumulated knowledge, no matter whether gathered from our own observation and experience, or from the experience of others. One is greatly benefited by the experiences of others. In the case of the Battle Creek Sanitarium, for instance, people in need of health come because they have been recommended by some person or persons who have been benefited. Just as the three R's are taught in school curriculum, so health is taught in this University of Health. If we accumulate facts only as fast as we can gather them by our own experience we progress very slowly and the sum of all that we can accumulate during an ordinary lifetime will not be much. If we gather all the facts we can from others, then the sum of our knowledge is limited only by our capabilities to retain what we have seen, heard and read. Following are interviews from men of culture, who, recommended to the institution by former patients, wish those who do not know or have not any clear conception of the benefits derived from the Battle Creek Sanitarium to learn what it has done for them:

PROFESSOR WILLIAM A. FINCH, professor of law at Cornell University: "When I came here six weeks ago there were no hopes held for my recovery; in fact, I, myself, thought I was going to die. My heart was terribly weak; that was where my whole trouble lay.

But look at me now. I'm getting fleshy and am not only feeling like another person, but am able, as you see, to get about again almost as well as I ever did before. Before arriving at the Sanitarium I decided to stay, that is, if I lived, two weeks, to try out the system, and if it benefited me I would stay all summer. I've been here six weeks now and I'm going to stay all summer. To say that I am a firm believer in the system in use here would be expressing it very mildly."

DR. J. B. CRANFILL, author, orator and publisher, of Dallas, Texas, whose literary works are known the country over, especially "Cranfill's Heart Talks"; who founded and published for many years the *Baptist Standard* of Texas; who ran on the Prohibitionist ticket in 1892 for the vice-presidency of the United States, and founded the first prohibitionist paper in Texas; and lastly, who called together the first prohibitionist conference in his State, now at the Sanitarium, says: "To follow the general health principles inculcated here means health, happiness and longevity. This is my eighth summer here. Therefore I am a firm believer in the Sanitarium and its system. It has been a great joy to me to see the success generally, not only of the institution itself but of Battle Creek Sanitarium methods throughout the world. I fully believe that the hydiatic system, non-flesh-eating idea, together with temperance principles and abstinence from tobacco, coffee, tea and flesh foods advocated by Doctor Kellogg will ultimately become the rule instead of the exception. The influence of the Battle Creek Sanitarium is permeating every nook and corner of the land. You can not go anywhere in America without finding that the beneficence of the Battle Creek Sanitarium has found and helped some person looking for health and a better way of life. I am an advocate of the Sanitarium and its system from every standpoint. I know they have helped me and I know they can help others."

W. V. CAMPBELL, prosecuting attorney of Belmont county, Ohio: "I never hesitate to advocate the Battle Creek Sanitarium whenever the chance presents itself. I have been greatly benefited and now feel altogether different from when I first came. It is my candid opinion that if sick people know a good thing when they see it they will not hesitate a minute about coming to the Battle Creek Sanitarium. The increasing numbers year by year only go to show the increasing popularity of the place and its system and the good it must have done hundreds who recommended the institution to others, causing this increase."

As a general rule, physicians are very reluctant about giving out their opinion of sanitariums. Therefore, when, unsolicited, we get the honest opinion of one who is recognized as not only one of the foremost physicians in Pine Bluff and Tilla, Arkansas, but one of the foremost in that State, who for the past couple of weeks has been a patient at the Sanitarium, we appreciate it highly. Here is what DR. A. C. STANLEY has to say:

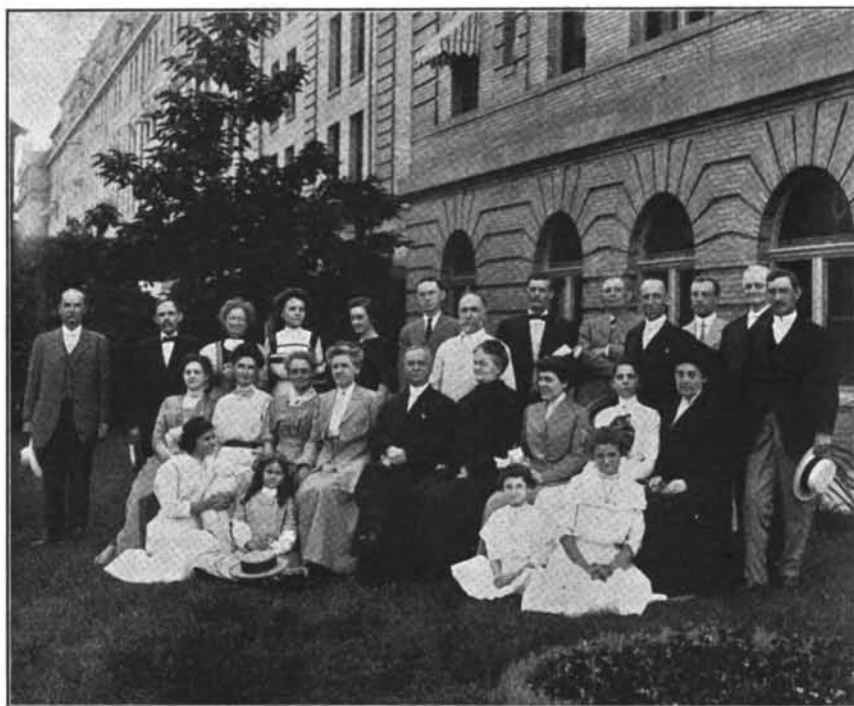
"I have traveled far and wide, have been from one end of the United States to the other, from north to south and east to west; have seen a great number of institutions of

the kind and have tried the treatments of a great many others, but the Battle Creek Sanitarium, I will emphatically say, is the greatest institution of its kind in the world. When I say greatest, I mean not only the largest, but greatest in the real sense of the word. The system in use here beats anything I have ever seen or heard of. In fact, altogether I am so pleased that I hope to come back again next summer."

B. S. THALHEIMER, Little Rock, Ark., who is the owner of a large horse ranch and annually handles several thousand head of

horses and mules, has the following to say: "I can not begin to express the amount of good the Battle Creek Sanitarium system has done me since coming here a couple of weeks ago. The food is excellent and I forget that I ever had meat, although before I was a big meat-eater."

F. W. BAILEY, prominent realty dealer of Houston, Texas: "I was very much surprised when I saw the size of this great institution. Everything is so noticeably systematic. Each person knows his place and what he is to do. The diet system is excel-



THE PINE BLUFF, ARKANSAS, COLONY AT THE SANITARIUM

COUPON

Send Us the Names

of interested friends
who you know would
like to have the in-

information contained in the **BATTLE CREEK IDEA**, and we will send them free of charge a few sample copies. Simply write their names and addresses in the blank spaces below, cut out the coupon and mail to us, and we will send the papers.

NAMES

ADDRESSES

This image shows a single sheet of white paper with horizontal blue or grey ruling lines. The lines are evenly spaced and run across the width of the page. There are approximately 20 lines visible. The paper appears to be from a notebook or a standard sheet of stationery. There is no handwriting or other markings on the page.

lent. People outside have little idea of the good quality of the 'grub' we get here. Forget meat? why, I haven't touched a mouthful of meat since I came a couple of weeks ago, and I never miss it. In the matter of health—the all-important issue—I will say that I feel a great deal better than when I first came. The treatments have done me a wonderful lot of good."

PROF. J. C. MONNET, acting president of the State University at Norman, Okla., who is

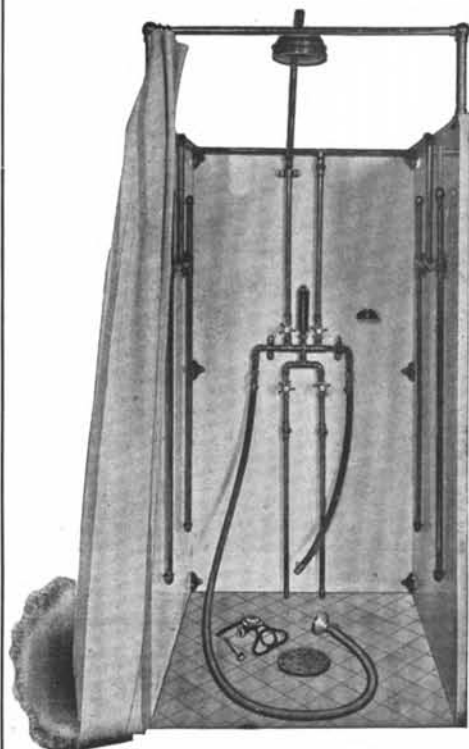
a guest for a couple of weeks at the Sanitarium, declares: "It is wonderful to see the ease with which this great institution is handled. I will certainly endorse the methods of the Battle Creek Sanitarium. It is a most wonderful system, and the good that it is doing me in the short time that I have been here will cause me to sing its praises wherever I go."

JUDGE JOSEPH SHELDON, of New Haven, Connecticut: "This place will become so

popular in five years' time that your buildings will not begin to hold half its guests. It's the greatest place I have ever seen in every way, and I can not find words that will rightly and justly describe the system and the institution as they should be. It's wonderful to watch the people come here sick and before very long see them walking about as easily and as well as any of us. I am for the Battle Creek Sanitarium every time."

"I think so much of this institution that I come twice a year," said C. W. SUTTON, of South Haven, Minnesota, owner of over 1,000 acres of farm lands, and stock raiser. "Mrs. Sutton is here also."

"The Greatest Thing in the World"



¶ You have still to enjoy the greatest thing in the world if you are not yet taking a cold shower—rain, needle, or spray—every morning. Nothing in all this wide world can equal it as an eye-opener, appetizer, and invigorator. It makes you all aglow with that fine feeling that life is worth living.

¶ Would you pay a hundred dollars to enjoy this luxury in your own home every day for the rest of your life? It sounds incredible, but that is really all you have to invest to secure the KELLOGG HOME DOUCHE, which can be installed in your own bathroom, ready for immediate use at your own pleasure.

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¶ The Kellogg Home Douche gives you in a more convenient form practically the same advantages as the

celebrated Kellogg Douche Apparatus now in use everywhere in sanitariums, hospitals, treatment rooms, gymnasiums, etc. And the Home Douche dispenses with the attendant—you operate it yourself, and get as good results.

¶ And if you use it daily, you may steer clear of the day when you have to go to a sanitarium to get water treatment as a cure. Get it now as a preventive—in your own home.

PRICE:

The Kellogg Home Douche Apparatus, complete with attachments for Spray,	
Fan, Jet, and Ascending Douches	\$100.00
Duck Curtain and Curtain Rod, extra	10.00
Three Kiln-dried Hardwood Slabs with wood basin and floor drain (the	
Good wood basin is to be filled in with cement by your mason), extra	35.00
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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 topics.

QUESTION. Does excessive smoking ever affect the hearing?

ANSWER. Yes, it affects the hearing, the seeing, the feeling, and it affects the heart-beat, and affects the breath, and by and by stops the whole of them.

Q. What are the symptoms of neurasthenia?

A. Neurasthenia is not a disease; it is a symptom of disease, or rather a group of symptoms, and every neurasthenic has a different group. It is simply a state in which the nerve centers are not able to store up the proper amount of energy; or they may be able to store up the energy but not able to make use of it. It is a state in which there is diminished capacity for work, and irregular, imperfect control of all the various functions. Neurasthenia may affect any part of the body; it is simply a condition of diminished vital capacity or nerve power. The neurasthenic usually has nothing the matter with his nerves, but the trouble is that his nerves are working under abnormal conditions. If the telephone rings violently, and you hear some one shouting at the other end of the telephone, "Your house is afire!" you do not blame the telephone and seek to have it repaired, but you proceed to attend to the house. Neurasthenia is a notification that there is something wrong with the house,—that there is chronic poisoning of the body. It is one of the symptoms of auto-intoxication. We must get rid of the poisons, and the neurasthenia will take care of itself.

ARRIVALS

THE list of arrivals at the Battle Creek Sanitarium for the week ending July 30 is as follows: J. S. Constant, Ill.; E. T. Fox, Toronto; Chas. Wolohan, Mich.; Juanita LaLand, New Orleans; John A. Heizer and wife, Cincinnati; A. L. Wyman, Chicago; M. W. Fleming, Ark.; H. Alfrey and son, and F. W. Harley, Ind.; John Meldazio, wife and daughter, Pa.; Mrs. Maynard Garner, Kansas City; Mr. and Mrs. Thos. Murile and J. C. Ring, Mich.; Jas. H. Bright and wife, Mo.; Paul B. Gaylord, Colo.; Edw. S. Schafer and Frans B. Schafer, Ill.; F. J. Curran, Mo.; Louise Beecher, Tenn.; Mrs. L. R. Lueffert and children, Cincinnati; L. R. Munger, Tex.; Mrs. Frank Penney and C. R. Herchman, Cleveland; H. C. Moore, Miss.; C. C. Sweet, Mich.; Mr. and Mrs. Richard E. Wathen, Ky.; Ed. O'Bryan and wife, Chicago; Mrs. J. W. Norris, Tenn.; J. B. Cranfill, Tex.; H. Walker and wife, Ark.; Mary E. Wendell, Ill.; V. F. Conkey, S. Dak.; E. F. Medory, Ia.; Edw. Ryan, Detroit; C. E. Gill, N. C.; Neva Taylor and

Mrs. H. B. Cameron, Neb.; Mrs. Geo. Lennox, Chicago; Miss Lydia Whited, Cal.; Miss Martha Jones, Cincinnati; Geo. Strubinger, Ill.; G. Ritchie, Jr., City; A. D. Stock, Mich.; A. Auker, wife and daughter, Ill.; Mrs. Esther T. Doom and Mrs. Dave Doom, Tex.; Miss Clara Chaney, Ind.; Prudence Binder, Ill.; J. V. Smith and wife, and Mrs. S. A. Moore, Mich.; Mrs. A. L. Brant and Eleanor B. Gorde, O.; G. W. Brady, Chicago; C. A. Phelps and wife, Mich.; Chas. Hull, Pa.; Levy Patton, New York City; Elmer Hall, Okla.; Edw. C. Horan, New York City; Samuel Schlosser, Ind.; Della A. Sharp, Mo.; O. L. Hammond, Ill.; F. C. Ralston, Mo.; H. G. Beatty and H. R. Beatty, Ill.; G. F. Norden, O.; Mrs. A. M. Kaufman and daughter, Tex.; A. V. Coco, La.; Bessie Blitch and T. N. Blitch, Ga.; Mrs. J. C. Mason and Anna E. Mason, Ill.; Mrs. Adelaide McClure and Miss Frances McClure, Mo.; F. D. Ewing and wife, O.; Mr. and Mrs. E. T. Long, Mich.; Mrs. E. A. Mayhew, N. Y.; Edw. O. B. Bryan, Chicago; M. Guisburg and Marie Cohen, Cleveland; Andrew Kingkade and wife, Okla.; M. K. Williams and wife, Okla.; Miss A. E. Patton and Miss E. H. Patton, Md.; Wm. F. Brown, Mattie E. Brown and Levina H. Sperry, Indianapolis; J. R. Moller, O.; E. H. Emery and W. J. McQuarter, Pa.; Mr. and Mrs. M. H. Elridge, New York City; Mr. and Mrs. H. C. Hiestand, O.; C. W. Williamson, Mo.; G. F. Norden, O.; Mrs. B. J. Cole and Ethel Cole, Mich.; Mrs. A. C. Nicholas, Mo.; C. Albrook, Ia.; Mrs. W. M. Gibson, Okla.; W. H. Kreitzer, Ill.; R. F. Dennis, Tex.; Mrs. Ralph R. Owen, Mich.; Mrs. Gogam, New York City; L. Stern, Ill.; Mrs. W. A. Reddick, F. E. Lewellyn and J. B. Conger, Mich.; W. J. Taylor, Pa.; Mrs. S. A. McKown and daughter, La.; Miss Mary Smiester, China; Mrs. A. W. Hewitt and Miss Edna Mossion, Ill.; J. B. Mayfield, wife and child, Tex.; Mrs. Motte Martin and Mrs. G. W. Sentell and daughter, La.; H. H. Steinmetz, Philippines; Albert B. Henry Hines, Neb.; H. J. Peterson, Chicago; Mr. and Mrs. Jesse Taylor, O.; Mrs. A. S. Wegener, Minn.; Henry Hines, Neb.; Mrs. A. S. Gitterman and E. M. Borchard, D. C.; Mrs. S. Steene, Mrs. G. Schatzkin and Henry A. Schatzkin, New York City; G. C. Clark, Mich.; Carl Fettig, O.; Mrs. G. C. Barton, Minneapolis; Mrs. Albert Boggess, Tex.; John Freeman, Ind.; Lucile Steinburg, Ill.; F. S. Yerger, Miss.; Mary A. Moody, Indianapolis; A. R. Gillies, wife and daughter, Mich.; Mrs. N. W. Bloom, Ind.; Geo. Bell, Fla.; Mrs. Elsie Holderath, La.; Mrs. T. J. Davis, Ia.; Mr. and Mrs. J. H. Luther, Ill.; Albert Whitford and Dr. and Mrs. G. E. Crosley, Wis.; Mrs. Jno. Parrott, City; M. S. Phillips, Ia.; W. H. Brock and R. H. Brock, Mass.; Mrs. C. C. Cole, Ky.; Geo. D. Sehermerhorn, Mich.; R. S. Bartlett, Chicago; C. S. Jones, Ind.; S. J. Lawrence, N. C.; C. B. Harner, O.; Tony Biggio, Geo. T. Monley and F. S. Biggio, Chicago; Mrs. Dahlgreen, Ala.; J. C. Monnet, Okla.; Helen Norton, Chicago; Winifred Funk and Maude Funk, Ind.; R. S. Warner and wife, and Mrs. G. W. Harris, Ala.; C. E. Simmers, O.; C. C. Henking, W. Va.; B. J. Trembling, Detroit; Miss Lyde Morrow, Tex.; Pauline Wambaugh, Ind.; L. H. Wieman, M. D., Ill.; J. E. McCreed, Ill.; G. M.

Beardslee, Chicago; J. Keller, Tex.; R. O. Wiel, Chicago; Mrs. J. H. Evans and May Evans, Okla.; E. M. Holder, B. H. Holder, W. D. Holder and wife, Miss.; Mrs. S. F. Meguire, Ariz.; Miss F. A. Hunt, Ill.; Rosetta Werthermer, Detroit; H. C. Tyrell, Okla.; Ben Lowenhaupt, Tenn.; Mrs. Julian, Cincinnati; W. J. Tral, Tex.; J. B. Modest, M. D., and wife, Detroit; R. E. Scott, Ind.; Maynard Garner and Maynard Garner, Jr., Mo.; D. McKinstry, Okla.; Abe Temberg, Mo.; T. J. Bird and wife, La.; Henry S. Curtis, Mich.; Ira B. Ford, Chicago; Mrs. L. M. Moury, Ga.

News and Personals

Among some of the influential real estate men with us this week are M. R. Williams, Muskogee, Okla.; W. H. Kreitzer, Bloomington, Ill.; and F. W. Bailey, of Houston, Texas.

The editor of the BATTLE CREEK IDEA, Mr. G. C. Tenney, is with Mrs. Tenney enjoying a much-needed vacation of a month, which he is spending with friends and relatives in Wisconsin and Minnesota.

Dr. Harry B. Knapp, of Porto Rico, who is well known at the Sanitarium and who is now studying in this country, was a visitor

Sanitarium Postcards

A series of beautiful illustrations of familiar features and scenes about the Sanitarium, taken by our own artist. Select from the following list. Prices, two for five cents, one dozen for twenty-five cents, sent to any address. Order of the Sanitarium, Battle Creek, Mich. They may be ordered either by number or title.

- 1 Bird's-eye View Sanitarium.
- 2 Sanitarium in Winter.
- 3 Gents' Bath.
- 4 Gymnastic Drill.
- 5 A Winter Night Scene.
- 6 A Winter Night Scene.
- 7 The Front Entrance.
- 8 Receiving Physician's Office.
- 9 Phototherapy Department.
- 10 Blood-Test Laboratory.
- 11 Ladies' Bath-room.
- 12 Vegetable Greenhouse.
- 13 Corner in Gastric Laboratory.
- 14 X-Ray Laboratory.
- 15 Gymnasium.
- 16 Front Entrance of the Sanitarium.
- 17 Main Building from the College.
- 18 East Hall.
- 19 Palm Garden.
- 20 In the Greenhouse.
- 21 The Main Parlor.
- 22 The Main Dining-room.
- 23 West Hall.
- 24 Northern View of Sanitarium.
- 25 Cooking School.
- 26 Nurses at Chapel Exercises Easter Morning.
- 28 Universal Strength Test.
- 29 Breathing Exercises.
- 30 Breathing Exercises.
- 31 Breathing Exercises.
- 32 The Kitchen.
- 33 Palm Garden Pharmacy.
- 34 Lady Nurses' Dormitory.
- 35 Bath-room Treatments.
- 36 College Building.
- 37 View of the Rear Lawn.
- 38 View from Front Entrance.
- 39 Southern View of Sanitarium.
- 40 Ladies' Indoor Swimming Pool.
- 41 Nurses' Graduating Class, 1910.
- 42 Gymnasium and Bath-rooms.
- 43 Nurses' Graduating Class, 1911.
- 44 Main Building (from College Lawn).
- 101 Sanitarium Annex.
- 102 Sanitarium Annex, from South Lawn.
- 103 The Annex, South Lawn.
- 104 Sanitarium Annex, from Southeast Lawn.
- 105 Sanitarium Annex, North View.
- 106 Sanitarium Annex, Southeast View.

for a few hours Friday night. He was on his way to New York to meet Mrs. Knapp.

The steady influx of gentlemen guests at the institution has necessitated the installing of a fourth chair in the barber shop. For this purpose the institution has secured the services of Edward Kesselmeyer, of Philadelphia.

The Pine Bluff, Ark., colony under the paternal care of Charles H. Owens, the congenial, optimistic coffee man, continues to increase. This week Mr. and Mrs. T. H. Walker added their presence to the happy family. Mr. Walker is a large planter.

Dr. Kellogg's large Oldsmobile is busy several hours every day taking out parties of guests, who greatly enjoy this opportunity of coming in close contact with the picturesque scenery which surrounds the Sanitarium on every side as far as the eye can see and miles beyond.

Among the professors now with us are J. C. Monnet, acting president of the State University, Norman, Okla.; Albert Whitford, professor of mathematics at Milton College; R. E. Hieronymus, president of Eureka College, Illinois; William A. Finch, professor of law at Cornell University.

Large crowds are taking advantage of the fine weather to attend the Chautauqua which opened last Friday at Lake Goguae, in the beautiful grounds of the Sanitarium Villa. The program of attractive and instructive lectures is much appreciated by those in attendance. The meeting will close August 6.

Judge Ben Lindsey, of Denver, was a guest for a day at the Sanitarium this week. The Judge remarked: "This is a great place. I am pleased and delighted. I shall spend my next vacation here." Patients were delighted to have the assurance that the Judge will give for their benefit when he returns one of his inimitable lectures.

During the past week the record attendance of the institution in all the many years of its existence has been broken. There are over a thousand patients in the institution at the present time. Yet so ample are the grounds and buildings that there is no crowding. The corps of thirty doctors and four hundred nurses and attendants are able to give prompt and satisfactory attention to all.

A unique sort of meeting was held in the main parlor a week ago Tuesday, when Judge Joseph Sheldon, retired lawyer of New Haven, Connecticut, and Doctor Kellogg conducted a "Sunshine meeting." Mr. Sheldon was at one time one of the best-known attorneys in New Haven. He is several years past the three-score-and-ten mark, but still brimful of optimism and an eloquent speaker.

The "grand old man" of East Hall has left us. Rev. R. T. Fowle, missionary to Turkey, formerly of Dover, Maine, who for the past month has been a patient at the Sanitarium, during which time he not only regained his health but made friends of all he came in contact with, left Monday morn-

ing for his old home, where he will meet his wife and son.

Five missionaries representing different parts of the world from China to Turkey, who are guests at the Sanitarium, had a pleasant day's outing at Lake Goguae last Saturday, and at night they attended the Chautauqua. The party was composed of Rev. George Rowland, Japan; Rev. R. T. Fowle, Turkey; Miss Annie Wells, West China; Miss M. Mesheh, South China; and Mrs. Haywood, of Porto Rico.

The old-time cotton worm appears to be making its presence again known and felt to the cotton-growers of the South and is the cause of considerable worry on the part of several guests at the Sanitarium. Dr. J. H. Simmons, one of the largest cotton planters in the South, who has been at the Sanitarium for the past couple of weeks, left on Thursday for his home in Pine Bluff, Ark., to make arrangements for the fight against this disastrous pest.

One example of faith in the Battle Creek Sanitarium as a place for recuperation was shown this past week in the coming to the institution for a month's stay of E. M. Borchard, law librarian of Congress; Alice S. Gitterman, acting secretary to the Honorable A. J. Sabath, of Illinois; Miss Gitterman's mother, of New York; and a friend, Miss H. G. Jones, of Washington. Miss Gitterman and Mr. Borchard assert they are fagged out from an extra session of Congress.

Mr. M. W. Wentworth and Dr. C. E. Stewart of the Sanitarium management have purchased one of the large farms belonging to the institution, known as Goguae Farm, and have fitted up a dairy which will be conducted under the rules of the certified milk associations. A fine herd of high grade cattle are already on the ground and the dairy will soon be in full operation. This new dairying enterprise has been undertaken especially for the benefit of the guests of the Sanitarium, who will use the entire output.

The new outdoor gymnasium was formally opened on Thursday afternoon by a swimming tournament under the direction of Howard E. Province, the Sanitarium swimming instructor. There were hundreds of guests in attendance. The fifty-yard dash was won by Alfred Judd, who still retains the amateur championship of Michigan. There were only a few contestants in the race, so the boys decided to have a larger tournament, the winners of which will be rewarded with suitable prizes, during the coming week.

Mr. T. Burdette Coon, pastor of the Seventh-day Baptist congregation, which holds its regular weekly services in the Sanitarium chapel, is on a six weeks' trip in central New York, visiting churches, preparatory to attending the general conference of the denomination in Rhode Island. Before going he made arrangements to have the BATTLE CREEK IDEA sent to him regularly, saying that he should feel lost if he could not keep in touch with the Sanitarium, of which he is

a vigorous advocate. Mr. William Robinson is acting as pastor in Mr. Coon's absence.

From call-boy to proprietor in twelve years is the record of A. E. Sanders, of Lafayette, Ind., superintendent and owner of the Wabash Valley Sanitarium, who visited the Battle Creek Sanitarium during the week. Twelve years ago Mr. Sanders was employed at this institution as a call-boy. He was very ambitious. His heart was in his work, and he saved his pennies. Later he became the owner of a mill in Indiana and there added to his swelling bank account. He was not long in gathering the wherewithal to realize the zenith of his ambitions.

A new and interesting departure has been started at the Sanitarium in the form of taking group photographs of persons from the various States. The first picture of the kind is that which appears on another page, twenty-five citizens of Pine Bluff, Ark., who came here on the recommendation of Charles H. Owens, of Pine Bluff. On Sunday afternoon all the Texans at the institution lined up at the east end of the building. Each person in these pictures will be presented with a copy. If they wish for more, they can purchase them at the nominal sum of twenty-five cents at the pharmacy booth.

Rev. Fr. Joseph F. X. Cloutier, pastor of the Sacred Heart convent at Albany, N. Y., who had been at the Sanitarium under treatment for the past couple of weeks, received a telegram Friday morning calling him to the bedside of a priest in Montreal. He left on the noon train. Father Cloutier has been a close adherent to the Battle Creek Sanitarium system of diet for several years and found so much benefit that he came to Battle Creek to spend his summer vacation. He left greatly delighted with what he had seen and experienced, and expressed himself as considerably improved even though his stay was cut short.

A collection of rare foreign and domestic postage stamps valued in the neighborhood of \$50,000, owned by Edgar Nelson Bradford, stamp collector, of New York and Meridan, Conn., will, within the next few months become the property of the Battle Creek Sanitarium. Mr. Bradford has signified his intention of turning the valuable collection over to the Michigan Sanitarium and Benevolent Association on condition that they exhibit the same in the institution for at least twelve years. Some of the rarest varieties are to be found in this collection. One Nova Scotian stamp alone is valued at \$500. The stamps are all in excellent condition and certainly worth going a long way to see.

The story around the life of Edgar Nelson Bradford reads somewhat akin to fiction. He was a very poor boy and later became a juggler in a circus and took the name of "Nelson." He went out of the juggling business several years ago and then took to the hobby of stamp collecting. Through trades and good luck he has reaped a fortune in the business. He is the eighth descendant of William Bradford, who came to America in the Mayflower, and who was second governor of the pilgrim colony.

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What is a Food?

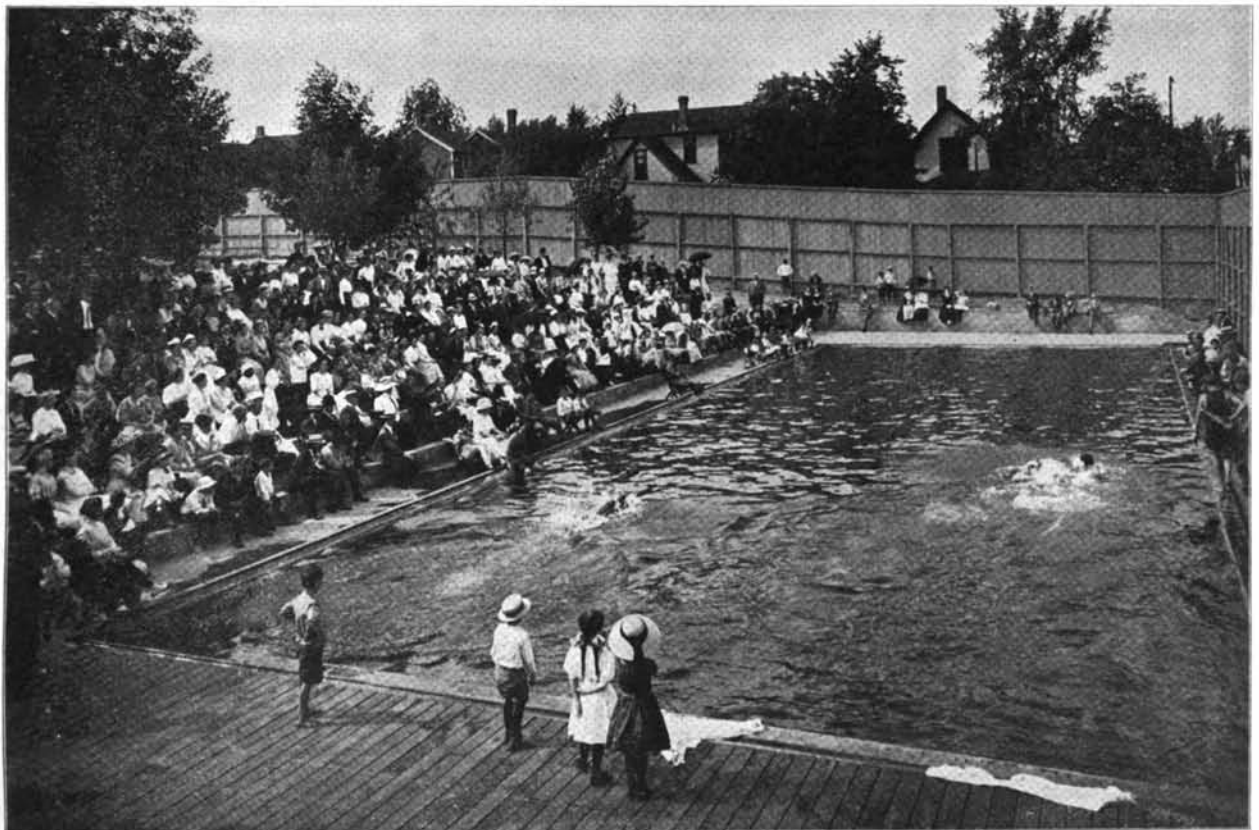
Dr. W. H. Riley Discourses on the Origin, Nature and Object of Foods, and Shows What is the Natural Food for Man

THIS is a subject which is particularly interesting to most of the people who come here. Our work at the Sanitarium is educational; we endeavor to teach people to live healthfully so that they will keep well after they have left us. Most people are interested in this sub-

The Conservation of the National Health

Dr. J. H. Kellogg, in a Parlor Lecture, Shows the Cost to the Nation of Death and Sickness, and the Need of a National Department of Health

THE most important question for us to consider at the present time is the question of health. I need scarcely tell you that, for some



A SWIMMING TOURNAMENT IN THE NEW OUTDOOR GYMNASIUM

ject in its relation to particular kinds of foods,—what they should use and what they should not use. That is, of course, very important, but to-night I am going to deal with some fundamental principles which,
(Continued on page two)

of you have come hundreds, some perhaps more than a thousand miles, in order to devote yourselves for a little time to the study and the cultivation of health. It costs a great deal of money, a great deal of time, and a great deal of effort to recover lost health. One who

has never lost his health can hardly appreciate its value, but one who has once been ill knows how to appreciate the value of health, and certainly ought to make a most earnest effort to retain it.

There is one thing that is very remarkable and well worthy of notice in relation to the statistics that are gathered by the United States Census Bureau. They have observers and assistants gathering facts from all parts of the United States, and this great mass of facts is classified and issued in an occasional volume. Very few people look into these volumes, but to me they are of great interest; I study every one with a great deal of care. The mortality statistics in the last volume sent out show that while there has been a marvelous decrease in the number of deaths from acute diseases, chronic diseases of all kinds are increasing at a very rapid rate. The mortality from chronic diseases has doubled in twenty-nine years. At the present time heart disease, liver disease, kidney disease, apoplexy and diseases of the arteries carry off 750,000 people in the United States every year. Of the 1,500,000 people who die in this country every year, just about half are carried off by some chronic, degenerative disease.

When we study the causes of this terrible mortality, we find abundant reason for the increase of chronic disease in the

Increasingly Vicious Habits

of the people. We are using annually in the United States ten pounds of tobacco per capita. That amounts to six drops of nicotine every day for every man, woman and child; and that six drops of deadly nicotine is enough to kill ten men and fifty cats. We are using tea and coffee enough to furnish every man, woman and child in the United States six grains of caffeine per day. That is a medicinal dose for a man, and a deadly dose for some smaller animals. The amount of alcohol consumed averages 356 grains, or three-quarters of an ounce per day, for every individual in the country. In this way the whole population, the race, is being poisoned.

Every fifty seconds a life is lost from some preventable cause. A few years ago Doctor Gould, of New York, and the great economist, Prof. Irving Fisher, of Yale, made a study of the question of

The Cost of Death and Sickness,

and found that it amounted to three billion dollars a year. Reckoning the average life as worth only \$1,700 and adding to this the cost of sickness, it was found that the actual cost of death and disease in the United States every year is not less than three billion dollars. That is more than half as much as the combined national debts of the world.

Some time ago, in relation to a bill proposing to establish a national health department. President Taft said: "I hope to see the time when the increased efficiency of the public health service, federal, state and municipal, will show itself in a greatly reduced death-rate. The federal government can give a powerful impulse to this by creating a model public health service and making our national capital a model sanitary city." There is nothing so much needed in this nation at the present time as this

National Department of Health.

We are losing more through inattention to this thing than through any other means. We are getting interested in the conservation of our national resources—of coal, forests, water power, etc.; but there is nothing of so much importance in this conservation effort as the conservation of the national health, the national vitality. There are so many things that have been discovered within the last few years, in relation to the preservation of health and the prevention of disease, that the common people do not know anything about; so many facts that have been developed by laboratory research that are simply hidden away in the musty tomes of society reports. It is necessary that we should have a department of health that will test all these new discoveries and bring them before the public.

"Of the enormous total expenditure authorized by Congress last year, amounting to \$1,122,000,000, only 1.3 per cent was used for the protection of the public health." Yet the public health is the most important question that could possibly be considered by our legislatures.

"The public health," said Lord Bacon, "is the foundation on which reposes the health of the people and the power of the country. The care of the public health is

"The First Duty of a Statesman."

Yet this is a question that with us is almost entirely ignored in the halls of Congress. There is much opposition to this proposed department of health, and the opposition is instigated to a large extent by those whose business it is to prey upon the health of the people,—patent medicine manufacturers. Christian Scientists are also somewhat interested in it. If the Christian Scientist had his way we should have no boards of health, no health officers, no quarantine laws, no instruction about disinfection; because the Christian Scientist thinks that disease exists only in the imagination, and the proper way to deal with it is to ignore or deny it.

Anybody interested in domestic animals can recognize the marvelous improvement that has been made in them in the last forty years. In my boyhood we used to see a great many scrub horses going about the streets. The farmers have improved our horses and eliminated the poor specimens of horseflesh. We have draught horses almost as big as elephants, immense creatures with tremendous strength; and there are to-day running and trotting horses fleetier than any the world has known before. Cows give more milk than they were ever known to do before; pigs are finer, bigger and fatter; sheep produce finer wool and in larger quantities; and chickens lay more eggs. But while there has been this great improvement in domestic animals of all kinds, man himself has been going steadily down-hill physically.

"To be a good animal is

The First Requisite to Success.

And to be a nation of good animals is the first condition of national prosperity." Herbert Spencer, who said this, was not himself a good animal. He died early, and in his last years he was obliged to go out in a boat and row for hours to get himself into a condition so he could work for an hour or two. He

had neglected to exercise until he had reached the point where he was obliged to exercise in order to live, and he was then able to accomplish very little. Our bodies are machines, and they require care. An automobile which is not taken care of very soon goes to pieces. Our "corpomobiles" require just as nice care as the automobile requires.

WHAT IS A FOOD?

(Continued from page one)

if well understood, will enable us to select our foods intelligently.

At the outset I want to give you a definition of food. We may say that a food is any substance that contains material that can be used in the body for the growth or the repair of tissue, or for furnishing energy to the body. Food contains two things that are useful to the body,

Material and Energy.

The material that is in the food is used in the body in many different ways. The growing child uses the material for the building of body tissue, bone, muscle, blood, brain, and all the organs of the body. The farmer takes care to feed his young stock certain food elements that will build up tissue; when they are older, and he wishes to fatten them for the market, he feeds them foods that will make fat. In this he is applying a lot more science than the human animal uses in feeding himself.

An adult does not need material for building up the body, but only for repair. As we go about our daily duties, there is a wear and tear on the bodily machine, and this must be made good. But the amount of food necessary to repair the waste is not so great as that needed

During the Growing Period;

therefore the growing child needs a larger quantity of certain food elements than the adult.

The human body has only one source of energy, and that is food. Energy put into a machine comes out in some other form; put energy into a dynamo, for instance, and it comes out in the form of electricity. The human body is a sort of machine for taking the energy that is in the food and transforming it into other forms. It is used in the body in a great many different ways, producing heat, doing muscular and mental work, keeping the heart beating, and enabling all the different glands of the body to perform their work.

A material substance, in order to be a food, must be of a peculiar kind; the elements of which it is composed must be combined in a particular way. Here, for instance, is a piece of coal and a piece of bread. Both contain material and energy, and there are in each some of the same elements; yet one is a food and the other is not a food. The material in a food is put together in such a way that the body can utilize it.

The same thing is true with reference to the energy. There is lots of energy in the world that the body can not utilize. Sunlight, the great source of energy, and essential to life and health, can not be absorbed directly as such and used by the body. Di-

rect sunlight acts upon an animal somewhat as a whip acts upon a horse; but it is a normal, physiological stimulant. Although we can not live without sunlight, its energy is not absorbed by the animal any more than the energy a man uses in whipping his horses is absorbed by the horses. The horse does not get the energy that the man uses in whipping him; the whipping is simply a means of getting more energy out of the horse. The only way we can get energy into our bodies is by taking food.

Let us now notice

The Origin of the Material

that is in our food. Where does it come from? The largest part of it comes from the earth, the air, and the water. This material is taken up by the plants. A plant, for instance, takes up carbonic acid gas (which is composed of carbon and oxygen) and water (which is composed of hydrogen and oxygen), and out of these it makes starch. Carbonic acid gas is not a food, and water is not an energy-giving food, though each contains energy and material; but they pass through the plant and are converted into starch, and the material and energy in the starch can then be utilized by the body. The plant takes these and other simple compounds and forms them into a chemical compound which we call a food.

A plant is the only machine in the world that can produce an energy-giving food. Animals do not make foods. Plants are food producers, animals are food consumers. This must have a very important bearing upon the question of

The Natural Food of Man.

The material of our food coming from the earth, the air, and the water, must pass through the chemical laboratory of the plant, which takes these substances that are not foods and changes them into substances that are foods. If animals were to feed upon each other alone, they would after a while be reduced to one, which would have nothing left to eat. Animals eat the foods produced by plants, and without plants animals could not live. So much for the origin of the material.

Now, what is the origin of the energy in the food? All the energy that is in the food comes from the sunlight. The energy that we are expending to-day in doing our daily duties was at one time in the form of a sunbeam, which was picked up by the plant, transformed into chemical compounds, and stored up. We get it in the form of starch, sugar, and other different compounds. We swallow energy when we eat our food, and, as before stated, that is

The Only Way We Can Get Energy

into our bodies. And there is a very definite and close relation between the amount of energy that we take in and the amount that goes out; one equals the other. The energy may remain in the body temporarily, but eventually it all comes out; the amount that goes out equals the amount taken in.

A food substance, in order to give up energy to the body, must be changed chemically. There is lots of energy in water, but the body can not get that energy out of it. Water enters the body as water and leaves it as water; consequently it does not

leave any energy in the body while passing through it.

In order to have our definition of a food complete, we must add to it that a food must not contain any substance that is harmful to the body. There has been some discussion in scientific circles in recent years with reference to alcohol—whether or not it is a food. It is true that a small amount of oxygen is oxidized or burned up in the body, but that does not make it a food. Alcohol is a poison and not a food.

A food is a chemical compound; that is, it is made up of two or more chemical elements. Food principles are the simplest, the fundamental parts of food, which when divided cease to be a food. There are six different food principles. We may dine with a king and have a very elaborate bill of fare,

and tends to make a person supple and graceful. It takes incessant playing and superb health to make a strong player, and a sure eye, a quick, decisive brain, and unerring judgment to make a clever one. Tennis quickens the wit, helps a vacillating mind to surer decisions, hardens and shapes the muscles so that they are not apt to take on layers of flesh later in life, gives strength, endurance and suppleness to the body, increases lung capacity, and gives that perfect control of the body which means poise and grace.

The tennis courts are well patronized by the students of the Normal School of Physical Culture, who are becoming expert players. The courts have proved very useful to them as well as to the other guests at the institution.



A TENNIS GIRL AT THE SANITARIUM

with the food fixed up in many different ways, but we can not get into the bill of fare more than these six different elements. On the other hand, we may eat our meal by the roadside with the laboring man, and if he has in that meal these six food elements in the right proportions, our body is furnished with nourishment just as well as though we had eaten with the king.

(Continued next week)

TENNIS AT THE SANITARIUM

No exercise or game indulged in at the Sanitarium has proved more popular than tennis. The six tennis courts located near the college building have been the source of a continuous round of enjoyment for the guests. Here are usually to be seen graceful women in the attractive garb of the tennis girl, as well as athletic young men, reaping the benefits of this healthful exercise. As early in the morning as five o'clock the courts are occupied by young men out for early exercise.

Tennis, if rightly used and not abused, has many beneficial effects. It is a great beauti-

A HOT-WEATHER RESORT

MICHIGAN climate, especially in the vicinity of Battle Creek, has been the cause of considerable comment from guests at the Battle Creek Sanitarium gathered from all parts of the United States. For some unaccountable reason the terrible heat wave that has been vigorously attacking almost every State in the Union has circled this district, for while all about us we hear of prostrations from the heat, yet right here in Battle Creek no one complains.

In one day during the recent hot wave 250 persons were killed and thousands were temporarily disabled, in the United States alone. Not one of these are recorded from within seventy-five miles of Battle Creek. An epidemic killing and disabling as many persons in the same length of time would be regarded as a plague and would cause international discussion. But there would be found ways and means of preventing another attack of the plague, and there is no solution of the heat plague problem. Nearly every summer there are many fatalities, to say nothing of the intense suffering to mil-

(Continued on page six)

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THE TYPHOID FLY

THE fly question is serious. The number of bacteria on a single fly may range all the way from 500 to 6,000,000. If one female housefly should survive the winter and on April 15 lay only one batch of 120 eggs, the number of flies born in the succeeding generations would be in five months over 5,500,000,000,000, and every one of those 5,500,000,000,000 flies may be a carrier of typhoid fever germs, consumption germs, germs which produce dysentery, and diarrhea, and other infectious diseases.

The common house fly is without doubt the greatest pest of civilized lands, and one of the most prolific causes of disease. The fly is a scavenger and feeds upon the same sort of material that attracts germs. The filthy sputum of the consumptive is a dainty morsel for flies and attracts them in great numbers. They swallow the bacteria and afterward discharge them. A fly-speck, the fecal deposit of a fly, may contain hundreds of these deadly parasites. We must fight the fly as we have fought the mosquito, and must as far as possible eliminate him from the haunts of civilized man. To accomplish this it is only necessary to suppress their breeding places and to avoid leaving about materials calculated to serve as food for them. Above all things, it is necessary to take care that flies never come in contact with the substances which are to be taken in the form of food or drink.

CHATS WITH SANITARIUM GUESTS

LIBERTY is the birthright of all Americans, and therefore it is possible for Americans to express themselves freely. In justice to the Battle Creek Sanitarium and its system, and in honor of this enterprise, prominent personages, from various towns scattered here and there throughout the country, have the following good words to say of the institution:

JUDGE J. P. MADISON, Batsrop, Louisiana: "This is certainly an excellent place and the diet is most wonderful, both in itself and its health-giving powers. I came here several weeks ago with a bad case of malaria. I wouldn't know myself now as compared with when I first came. On some people the system commences to work right away, and again on others it takes time. It was a couple of weeks before I began to notice any real difference in my health. But when it does start, health is quickly regained here. No wonder, then, remembering the condition

I was in when I came, that I am ready at any time to say a good word for the institution. I think the climate here has a lot to do with the benefits derived. I sleep like a top."

One of the most enthusiastic "Sanditarians" to be found in any State in the Union to-day, WALTER B. GRAY, president of the Mutual Realty and Investment Co., and also president of the Carney Investment Co., of Tampa, Florida, who is among the present guests at the Sanitarium, says: "I was here a year ago and liked the place and environment so well that I am back again, as you see. While I have been here but a few days this time, I'm beginning to feel like myself again right away. This cure is wonderful. I know from personal experience just what the Battle Creek Sanitarium system can do. I haven't touched a bite of meat, nor drank a spoonful of coffee since I was here a year ago, and I feel better than I have in ten years, and am heavier, too. I hope that hundreds of other sick people will soon learn of the health-giving powers of this place."

IRA CRENSHAW, of Crenshaw Bros., the largest wholesale produce and seed concern in Tampa, Florida, now a guest at the Sanitarium, is here on his third visit. Mr. Crenshaw was troubled with indigestion. "This is surely the finest place I ever struck," he declared yesterday. "I have seen other places that might look attractive to some, but they certainly never can come up to this place. I had serious stomach trouble when I came here three years ago, and I derived so much benefit that the next year I came again. I feel so rejuvenated when I get back here that I'm afraid it's going to be an annual craze."

REV. C. S. MASON, pastor of the First Presbyterian church, Conway, Ark., is here to recuperate from a hard year's work. Rev. Mr. Mason only arrived a few days ago but already declares himself to be feeling better. "The finest place to come for a rest I have ever seen in my life," he said. "I was in bed six weeks with acute indigestion before I came here. You can see me now. I'm not in bed, but am getting well again from the treatments here. I notice what an excellent climate this is. Down where I came from the atmosphere is always moist, the days are very warm and the nights exceedingly cool. The favorable climate no doubt accounts for me being able to sleep so well here."

"I'm very pleasantly disappointed in the Battle Creek Sanitarium," declared W. B. LOWRANCE, prominent attorney of Topeka, Kansas. "The appointments can not be better and the food is excellent. You would naturally expect that in so large an institution of this kind you would find the atmosphere of the hospital. I did. But what a surprise was in store for me! It was like nothing else I had ever seen. There don't seem to be any sick people about. Why is it? Simply because each and every sick person in this institution to-day is trying to help the other fellow to health again. They are made to forget their ills. A hopeful spirit rests among all of us, and no one ever seems discouraged. It has surpassed all imagination, and I have never been so surprised in my life before as I was with this institution."

PROF. GEORGE PARKER, Dean of the Fine Arts at Syracuse University, Syracuse, N. Y., successor to the famous Dean Comfort: "I came here for treatment four years ago for the first time, and was so favorably impressed that I'm back again. This is an excellent place. I have traveled many miles and yet have to find a place where greater benefits can be derived. I am a firm believer in the Battle Creek Sanitarium system."

COL. JAMES J. SHAFFER, of Minerva, Louisiana, owner of one of the largest sugarcane plantations in the South, who with his wife and two daughters has been a guest at the Sanitarium for the past six weeks, declares he is highly pleased with the treatments in use here. "A fine place to come, all right," he emphatically asserted. "All of us feel greatly benefited since we came, and I especially. We could not wish for more courteous treatment at the hands of the doctors, officials and others. Everybody is pleasantly inclined, and altogether we like it very much."

When E. LEMLE, retired wholesale grocer of New Orleans, came to the institution three weeks ago he was such a nervous wreck that he couldn't go up in the elevator nor even to his room alone. There always had to be an attendant with him. Slowly but surely he commenced to show signs of progress toward health. It was not long before he was able to go up in the elevator without some one holding his arm, and now he is able to walk about the grounds, to go down into the crowded business thoroughfares as anybody else would, and while he is not yet completely cured, it is only a matter of a very short time before he will be. "Too much can not be said for the Battle Creek Sanitarium and the Sanitarium diet," he said. "It is certainly the best of food that we get, and to abstain from the use of coffee, tea and meat was nothing at all."

"I've been here six times in six years and I hope to come again next year," averred H. BRINH, realty dealer of Ennis, Texas, now a guest at the Sanitarium. "My trouble was nervousness, a breakdown from overwork. Since coming here I no longer have the troubles with my system that I used to have. The diet certainly has worlds to do with it, and then the equipment here is so complete that it's almost a man's own fault if he comes here and doesn't get cured."

But they are by no means the only ones who are being cured here. There are hundreds of women also. Prominent among these is MRS. RITTER, wife of A. H. Ritter, retired Detroit millionaire, formerly head of A. H. Ritter & Co., of Detroit, the largest wholesale liquor house in Michigan. "This is surely a grand place," she remarked at dinner the other day. "I am beginning to feel like myself again, quite rejuvenated. I can not say enough for the Battle Creek Sanitarium and its foods. Every person seems to be so congenial and nowhere is there any evidence of discontent."

JOHN A. PAYNE, druggist, of Kansas, Ill.: "I came here three weeks ago suffering from kidney and nerve troubles, and during those three weeks I have been so benefited that I'm going home this afternoon, but just as soon as I can spare the time again, I'm

coming back to this institution, which in my mind is the greatest institution of its kind, with the greatest system of any sanitarium or health-giving resort in the world. To express it rightly, I will say it is the greatest of the great."

Twenty-nine years ago, when Battle Creek could hardly be called a town and the Battle Creek Sanitarium was but in its infancy; when two doctors and a few students took care of the comparatively small number of patients and the institution was known in but a few states, GEORGE STRUBINGER was brought from his country home at Marshall, Ill., not expected to live. Several weeks he remained here, and at the end of that time returned home completely cured. Last week he returned to the Sanitarium to spend several weeks under treatment. "My farm is a large one and of course there is plenty of work to be done all the time," he said. "When I came to this place twenty-nine years ago there were no hopes held out for my recovery, but despite all that I got better, thanks to this Sanitarium. For twenty-seven years I felt as well as I ever did in my earlier life. Two years ago I commenced to fail a little. The work was too hard and strenuous. People advised me to go here and go there, but I told them if I went anywhere it would be to the Battle Creek Sanitarium. But something would invariably come up that would stop me from coming. However, this summer I made up my mind that if I wanted to live much longer I had better come back to the place that had restored my health before—and so I am here to-day. Probably you will hardly believe it, but I feel better already. Words can not express my feeling toward this institution. When I first came it was a small place with but a few cottages. Not long after I left, an addition was made to the main building. Later I read of the big fire. But what a difference between then and now! This is a city now; it was but a hamlet then."

ERNEST HULL, Eureka, Kansas, one of the cattle kings of the State, who has been at the Sanitarium off and on for a number of years, and who is again with us, says: "The fact that I keep coming here year after year shows how much I like this place, and the good it does me. I spent one whole winter here a couple of years ago, and I never felt better after anything in my life. This is the health cure for everybody all right, and the sooner the whole world gets wise to the fact the better it will be for it."

REV. DR. BENJ. S. HAYWOOD, superintendent of the Porto Rico Mission of the Methodist Episcopal church at San Juan, who was born in the pretty city of Lafayette, Indiana, but whose residence now is at Riverside, California, came here a few weeks ago with his wife and daughter. Doctor Haywood, who, by the way, has been in almost every civilized and uncivilized country on the map, declares that he has yet to find a place to equal the Battle Creek Sanitarium. "The food is excellent and if a person will only follow the instructions given them there is no reason that I can see why they can not regain their health, no matter how sick or poorly they might have been. I am a thorough believer in the health-dealing powers

at this great institution. Both my wife and myself are more like ourselves again than we have been for some years."

W. F. STANLEY, a prominent hardware and furniture dealer of Levy, a suburb of Little Rock, Ark., who was here two years ago, and is again listed among the guests: "It certainly seems fine to get back to the old place. When I was here two years ago I grew to like this institution and every one around it. It was so different from anything I had ever seen before. I like it better than ever now, and I'm going to stay until I'm cured of this attack of nervous prostration."

W. J. Cox, representing the Roselyon Hardware Co., Little Rock, Ark., who was urged to come by a number of former patients, declared at the dinner table Sunday that during the three days he had been

here he had evidenced a greater change in his system than he had dared hope to find in the two weeks he expected to spend here. "I can not imagine what I'll feel like at the end of the two weeks," he emphasized. "I believe I'll imagine myself a boy in the teens once again. I have never seen anything to beat this place, and I'm mighty glad that I came."

EDWARD STEINER, manager of the boy's clothing department of the F. G. Clayton & Co. store, the largest gents' outfitting establishment in Detroit, has been here one week and is rapidly regaining his health. "I wish every person who has ills great or small could know what this institution is like," he remarked. "There is nothing to compare with it. While I was able to walk around the day I came, yet there was that terrible feeling, the lack of ambition. I was tired



A GROUP OF TEXANS AT THE SANITARIUM, AUGUST, 1911

COUPON

Send Us the Names

of interested friends who you know would like to have the in-

formation contained in the **BATTLE CREEK IDEA**, and we will send them free of charge a few sample copies. Simply write their names and addresses in the blank spaces below, cut out the coupon and mail to us, and we will send the papers.

NAMES

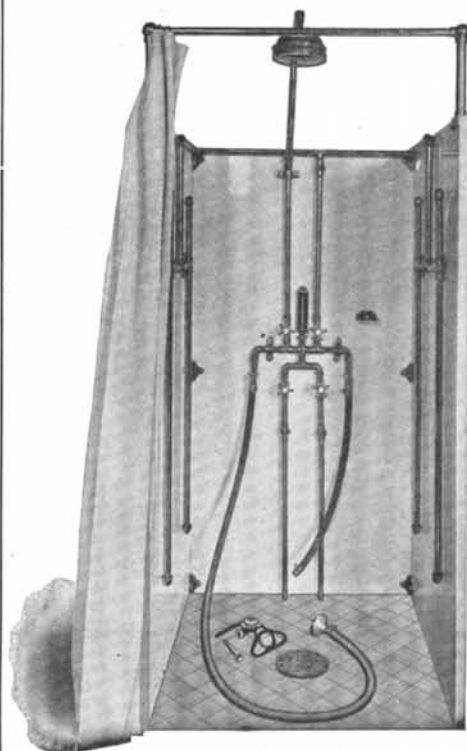
ADDRESSES

out by hard work, and did not care very much what became of me. To-day I feel as different as day is from night. It was amazing, the change that came over me, and I'm gaining back the strength that I once had."

"The best place on earth for any person in search of health," says REV. GEORGE M. ROWLAND, of Sapporo, Japan, formerly of Morristown, St. Lawrence county, New York, who has been here for the past

month. "In all my travels I have yet to find the place that can equal it. I especially like the gymnastic work and try to get into anything of that line that I possibly can. The march at night is certainly a fine feature; it is something that will limber a person up greatly. The morning's walk is also good. The treatments can not be spoken too well of, and the institution in general is certainly beyond the imagination of those who have not come to see and know for themselves."

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¶ You have still to enjoy the greatest thing in the world if you are not yet taking a cold shower—rain, needle, or spray—every morning. Nothing in all this wide world can equal it as an eye-opener, appetizer, and invigorator. It makes you all aglow with that fine feeling that life is worth living.

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¶ The Kellogg Home Douche gives you in a more convenient form practically the same advantages as the

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¶ And if you use it daily, you may steer clear of the day when you have to go to a sanitarium to get water treatment as a cure. Get it now as a preventive—in your own home.

PRICE:

The Kellogg Home Douche Apparatus, complete with attachments for Spray, Fan, Jet, and Ascending Douches	\$100.00
Duck Curtain and Curtain Rod, extra	10.00
Three Kiln-dried Hardwood Slabs with wood basin and floor drain (the wood basin is to be filled in with cement by your mason), extra.....	35.00
Good Health, Slate Slabs, each, extra (wood slabs just as serviceable).....	15.00
Battle Creek, Marble Slabs, each, extra	35.00
Mich.:	

I am interested in your Douche for the Home—send me full particulars.

**Good Health Publishing
Company**

Battle Creek, Michigan

A Hot-Weather Resort

(Continued from page three)

lions who are not killed or prostrated, and the outlook is always for suffering next year. While nothing can be done to prevent killing heat, a good deal may be done to lessen suffering from it and the risk of illness or death. The vitality stored by a good night's sleep is the best preventive of suffering during the day, and it is never so warm in Battle Creek during the warmest weather that one's sleep is disturbed by the heat. The Sanitarium building stands upon an elevation several hundred feet above Lake Michigan. For this reason, the temperature is lower than in other places not so elevated.



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THE NEW CITY PARK

ARRANGEMENTS are now practically completed for the creation of a park comprising nearly sixty acres of land. The park begins at a point joining the Sanitarium premises on the east and extends north for nearly three-quarters of a mile. The site selected affords wonderful diversity of hill and dale, bluffs, thickets, groves, meadows, lagoons, bubbling springs and a fine brook. Within the past few days a right of way has been secured for a boulevard entirely around Spring Lake, which lies at the head of the tract, so that the lake will be included in the park. A boulevard has been secured from the park to Washington Avenue, which will make a fine drive of more than two miles through and around the park.

ARRIVALS

THE list of arrivals at the Battle Creek Sanitarium for the week ending August 6 is as follows: Margaret Hall, Wis.; S. C. Schmucker, Pa.; Wm. Burtless and Lewis Liner, Mich.; Miss D. M. Richard, Ala.; H. B. Wintersmith, Ky.; G. B. Burns and wife, and H. J. Tower and wife, Chicago; John Thomas and wife, O.; M. B. Frost, Tenn.; Katherine Miller, Ill.; Mrs. Bing, Mich.; Mrs. J. L. Boynton and Miss Maude Jones, Ga.; Perry Bayer, O.; Benj. Martin, Jr., Okla.; David Paulson and Ora Barber, Ill.; Mrs. Russell Everett, Cincinnati; A. C. Gaylord, Ill.; Mr. and Mrs. H. L. Heilperin, Mrs. S. Herold, Flora Herold and Henrietta Herold, La.; Mrs. Amos P. Foster, Cincinnati; John A. Watkins, Mo.; Ralph R. Owen, C. F. Edward, W. Va.; Mrs. W. E. Beckwith and Jeannette Rice, Cleveland; Chas. Callard and J. C. Snyder, Mich.; C. Battestoin, Chicago; Mrs. Geo. O. Haskell, Tex.; Mrs. W. J. Thomson, Ky.; A. J. Steiner, Detroit; Mrs. E. W. Wornack, Tex.; Miss Mary Farquharson, England; Saul Findenbergh, O.; Chas. S. Hardy, N. J.; Judge Ben B. Lindsey, Denver; Fraus B. Schlaefer and wife, Ill.; Hattie G. Jones, Washington, D. C.; Geo. Lynn, Jr., and wife, and Miss C. A. Lynn, Neb.; Mrs. A. Goodholm, Okla.; Mrs. E. B. Gregory and Mr. and Mrs. Geo. C. Newcomer, Pa.; T. M. Hyers, Fla.; A. J. Scott, Chicago; O. G. King, Ind.; C. E. Crandall, Wis.; Mary Hotsenpilliar and Rev. A. V. Vondersmith, Ill.; W. B. Lawrence, Kans.; J. C. Ansley and wife, Ala.; Mrs. Eva McDaniel, and Dr. T. E. Palmer and wife, Mich.; Mrs. F. McCain, Mich.; Sadie Lovelace and O. C. King, Ind.; Mrs. Theodore Henning, Neb.; Wilson T. Hague, Mrs. J. A. Jones, and Mrs. Nellie M. Orr, Ill.; G. A. Zinke, Wis.; M. J. Parks, Miss, G. L. Schoryner, Cleveland; O. L. Churchill, Mich.; J. W. Boyle, Ont.; Mrs. Grace Dyer, Mich.; Mrs. B. D. Crane, Mrs. P. R. Davis, Aleyone Mantor, and Carey Crane, Ark.; J. A. Ford, Mich.; Geo. L. Houston and family, Tex.; Henry Sherley and wife, Wis.; G. Frank Green, New York City; Miss L. M. Parker, Ala.; Mrs. H. O. Steele, N. C.; A. M. Duncan, Ala.; C. A. Gibson, Tenn.; Rilla Arnold, Ind.; Olive M. Hunsaker and Helen Hunsaker, Cincinnati; Miss E. J. Martin, City; Louis P. Doering, Cleveland; Miss M. E. Van Cise, N. J.; T. J. Norton, Chicago; E. M. Alvord, Okla.; J. O. Hamilton,

Chicago; Elma F. Piddick, Tex.; J. M. Haynes and Brandon, Tenn.; W. B. Brooks, Seattle; Dr. T. A. Phillips, Mich.; W. F. Stanley and W. J. Cox, Ark.; E. R. Bowen and wife, Ill.; Mrs. A. B. Thanady, Tex.; Miss Sue Malone and Mrs. Davis, Ala.; M. C. Tucker and family, Ind.; Clara Boyt, Mo.; D. Louise Vreeland, Detroit; E. L. Pease, O.; F. C. Ralston, Mo.; Mrs. A. S. Marquis, Ia.; W. E. McMeyer, S. Dak.; Dr. Alice G. H. Duden and Hans A. Duden, Indianapolis; Mr. and Mrs. D. Thompson and Mrs. W. Gill, Ia.; Patrick Fogarty, Wis.; Chas. R. Heury and wife, Mich.; A. B. Minor, Neb.; E. H. Kirk, O.; Katherine Schaffner, Okla.; Mrs. W. Donovan, Detroit; W. O. Travis, W. Va.; B. M. Jones and wife, Burma; John M. Klippinger and Mr. and Mrs. C. N. Blowers, Chicago; Chas. Robinson, Tex.; A. L. Bernard, wife and children, Ind.; A. B. Scarborough, Tex.; Mrs. Paul Maire, Ind.; F. E. McGaughey and wife, Miss; J. L. Bennett, Minn.; Mrs. Haay and Harold Powell, and W. F. Lenderson, Chicago; A. M. Goss and wife and O. P. Graves and wife, Ind.; Mrs. Frederick L. Bradey, New York City; Mrs. R. M. Morris, Mrs. Wm. Proudfoot and Beatrice D. Vincent, Miss.; D. H. Tomb, Pa.; Mrs. P. Heald, Del.; G. P. Beavers, W. Va.; E. Gilbert, Mich.; R. N. Buchanan, Indianapolis; John Williams and wife, O.; John H. Hall and R. E. Jones, M. D., Ind.; Leona Cove, Okla.; L. A. Earle, M. D., S. C.; Geo. L. Newson, O.; H. C. Bagley, Ga.; W. S. Shaw, Philadelphia; C. F. Warren, Chicago; Sarah W. Warren, Mass.; J. W. Lindsey and T. N. Lindsey, Ky.; John Deekson, wife and daughter, and Mrs. Buell, Tenn.; Paul L. Gaylord, Denver; S. C. Alexander and wife, Ark.; Mrs. Ben Levy, Mo.; Matt Rolence, Ill.; Mrs. Robt. C. Berlin, Chicago; C. B. Stephwa, Ind.; C. S. Mason, Ark.; W. L. Hooker, Miss.; Anna Fourman, Ind.; Mrs. Paul Brown, Mo.; G. S. Brown, Me.; Florence A. Hamilton, Cleveland; Katherine Diebel, Mich.; B. J. Trembley, Francis Bannister, Mrs. C. G. Franklin, Detroit; Emily May Ely, Mich.; Mrs. F. E. Denivan, Detroit; Mrs. Chas. Ascher and Frank L. Taylor, Ill.; Mrs. J. C. Turner, Miss.; Mrs. B. B. Jones, Okla.; Miss Virginia McKie, Miss.; W. S. Garrition, Ind.; M. Rosabaum, Chicago; H. W. McCall and wife, Okla.; Mrs. F. A. Luther, Ill.; F. H. Gill, Detroit; Miss D. Marquies and Miss E. Kargrok, N. Y.; J. R. Gamba and wife, Ala.; Wm. Stern, Ill.; Geo. D. Schermerhorn, Mich.; Mrs. A. J. Hiestand, O.; Rev. Lewis Brown and Mrs. L. M. Brown, Indianapolis; P. M. Kennedy, O.; Fred Schaible, Jr., Mich.; A. W. O'Harra, Ill.; T. L. Watt, Ga.; Miss Louise Ezzell and Edgar Ezzell, Ky.; J. J. Faucher, Kans.; W. B. Gray and wife, Fla.; O. A. Field and wife, Mo.; Mrs. Jennie Anderson, Ind.; Abe Teinberg, Mo.; J. M. Galbreath, Des Moines; J. H. Evans, Okla.; Robt. Walker and wife, Mo.; V. E. Adler, Washington, D. C.; A. Kramer and M. Kramer, Cleveland; A. L. Maxwell, Ill.; A. W. Ziegler, Ill.; A. L. Ziegler, Ky.; Mrs. A. J. Offenhauser, Ark.; W. F. Holden and wife, Mo.; R. McClintock and wife, Ala.; J. E. Boyce and J. F. Simmons, Ark.; Chas. H. Brown and wife, O.; J. W. Curran, Chicago; P. B. Fellwort and wife, Ind.; Ethel Cole, Mich.; Mrs. Chas. Huenryager, Ind.; Mrs. Amos Clinger, Pa.; Prof. P. T. Magan, Tenn.

News and Personals

Thomas A. McCormick, of London, Can., was a guest at the Sanitarium for a few days this week.

George Lyons, publisher, banker, realty dealer, and ranch owner, of Nelson, Neb., is spending a few weeks in recuperation at the Sanitarium.

C. A. Gibson, postmaster at Lorraine, Tenn., is here for treatment. Mr. Gibson has been here before and is greatly pleased with the institution and its methods.

Rev. Dr. C. A. Berger, of Iowa, delivered an interesting address on "The Gospel of Christ," before several hundred people at the Sanitarium Sunday night. Doctor Berger is a gifted orator and held his audience throughout.

E. M. Alvord, general manager of the Midland Valley Railroad Company, Muskogee, Okla., and his mother, Mrs. J. Alvord, of St. Louis, are guests for a few weeks. Mr. Alvord is prominent in the affairs of Muskogee, as well as in railroad circles.

Chautauqua week broke the record at the Sanitarium so far as box lunches are concerned. Scores from the Sanitarium followed the course from beginning to end, and as a result there was a never-ending string of orders for box lunches going into the kitchen.

Rev. James G. Hunt, missionary to Egypt, who for several weeks has been acting in the capacity of chaplain at the Annex, left on Sunday morning for Illinois, where he will visit his relatives. On the eve of his departure he was presented with a gold-headed umbrella, a gift from appreciative guests at the institution.

The men's new outdoor gymnasium, containing the large swimming pool, one hundred by thirty-five feet, shown in our front page picture, is now in full operation. This leaves the ladies the exclusive use of the other outdoor gymnasium. There is now a most complete outdoor athletic outfit for both ladies and gentlemen, and both are availing themselves of their increased privileges.

The busiest Chautauqua speaker in Battle Creek during the past week was Dr. Homer C. Stunz, first assistant secretary of the Methodist Board of Foreign Missions and former superintendent of the Philippine Islands Mission Conference, who was a Sanitarium guest during his stay here. Doctor Stunz, when not engaged elsewhere, had his time taken up by several missionaries under the Methodist Board who are patients here.

Mrs. W. Z. Thomson, of Georgetown, Ky., is with us again for a few weeks. Mrs. Thomson has been a patient and guest of the institution a number of times during the last fifteen years, and always does credit to the Sanitarium system by marvelously rapid improvement, for which, however, considerable credit must be given to her wonderful op-

tinism, which is an inspiration to all who come in contact with her.

Congressman J. Adam Bede, whose son was a patient at the Sanitarium a year or two ago, was one of the most popular speakers on the Chautauqua program. The lecture was well worth hearing. He reports his son in good health as the result of his stay at the Sanitarium and especially as the result of the experience of right living with which he became acquainted while spending a few weeks at the institution as a patient.

An article appeared in the issue of July 21 of this paper which stated that "Mr. C. M. Kendrick, a financial king of Broadway, president of the Title Guarantee and Trust Co., of New York, is among the distinguished guests this week." This statement was erroneous. Mr. Kendrick disclaims the title of financial king, and besides is not the president of the Title Guarantee and Trust Co., nor in any way affiliated with that company.

Sunday evening concluded the most successful Chautauqua ever held in Battle Creek, either financially or numerically. The program was unsurpassed by any ever before delivered before a Battle Creek audience, and the Battle Creek Chautauqua Association are justly elated over the results. There were over two thousand persons out to hear Judge Ben Lindsey, the famous juvenile court judge of Denver, who spoke on the "Misfortunes of Mickey." The other speakers were all good, and it was an appreciative audience that heard them.

The Midland Jubilee singers gave a concert in the main parlor of the Sanitarium on Wednesday afternoon. There was a very large attendance and an excellent program. The Midland Jubilee-singers have been on the Chautauqua circuit for several years. They are a well-trained company of long and successful experience. The program presented a great variety of compositions ranging from plantation jubilee to grand opera. Mr. Hann, the basso and manager of the company, has a fine deep bass voice and great musical talent.

Several "Sanditarians" have exhibited a desire to walk every minute of their spare time. Early every morning five prominent guests don their walking togs and proceed for a jaunt to Gogue Lake and back. At 3:30 one morning two well-known gentlemen from Missouri, who do not wish their names divulged for various reasons, started out for a long walk. It is said that they reached the city again at nine o'clock. They say they walked every minute of the time. Their friends believe that fishing has something to do with it.

Missionaries who have visited the Sanitarium and made numerous friends, on their return to China do not forget that many of those friends have never seen the home of the yellow race and therefore might cherish curios from the far-off land. This week a package containing a large number of Chinese curios, among them Chinese idols manu-

carved from peach stones, chop-sticks, book marks, moustache comb, etc., was received from Miss Annie Wells, a missionary to West China, who was a guest at the Sanitarium for several weeks.

An unusually large and interested audience assembled on the lawn at the four o'clock missionary meeting last Sabbath afternoon to hear the Rev. Mr. Hardy's talk on Korea, and they were amply repaid. Mr. Hardy has already spent twenty years as a missionary in that country, and is fully acquainted with all the conditions there. It is safe to say that all present at the address received wholly new ideas and felt themselves drawn to the quiet, peaceable, teachable Koreans. The devotion of the native Christians and their contribution of themselves to the work furnish an example that might well be followed by Christians in this country.

A solution of the problem of why so many baldheaded guests at this institution have been going bareheaded all the time has at last reached us. It is all because a baldheaded man of high social position spread the story that he was producing a second growth on his scalp by the simple means of leaving his hat on the rack. It is said that he went around hatless in the fierce glare of the sunlight for several days and presently observed that his most pronouncedly bald head was becoming fuzzed over with a promising colony of hairs. Now the baldheads at the Sanitarium have taken it up and joined the hatless crowd.

Domestic science is a good thing for any woman to know, whether she is on her own resources or whether she is cooking for her family. Then, too, a knowledge of domestic science enlarges the opportunities for marriage, and, after that state has been entered into, affords added assurance of its proving a success. There is a good deal of truth in the old adage that the most direct route to a man's heart is through his stomach. The domestic science department at the Sanitarium under the direction of Miss Lenna Cooper has proved a growing success from year to year. Here the fine art of cooking is taught in its perfection, as well as every other branch of household economics.

Among prominent guests this week were H. B. Wintersmith, manufacturer, Louisville, Ky.; H. L. Hulperin, oil business at Schrempport, La.; W. H. Tibbs, banker, Hamburg, Ark.; Dr. L. K. Adlon, Abbott hospital, Skaloosa, Ia.; H. J. Toner, attorney, Chicago; Dr. L. H. Wimon, La Moille, Ill.; B. M. Jones, missionary from Burma; H. A. Duden, analytical chemist, Indianapolis, Ind.; Dr. E. E. Tohman, Chicago; A. J. Scott, broker, Chicago; W. B. Lowrance, attorney, Topeka, Kansas; Dr. C. S. Hardy, Summit, N. J.; C. L. Churchill, banker, Shelby, Mich.; D. Thompson, harness manufacturer, Clinton, Ia.; Charles R. Henry, attorney, Alpena, Mich.; Dr. A. M. Duncan, Utah, Ala.

The *Planet*, a daily newspaper published at Chatham, Ontario, Can., recently published the following article concerning Miss Grace Gammage, of that city, who is well

known at the Sanitarium here: "Miss Grace Gammage, the talented daughter of Mr. and Mrs. E. C. Gammage, Raleigh street, is receiving the congratulations of her many friends on the very creditable standing which she obtained in the recent Toronto College of Music examinations. Miss Gammage heads the list of those taking first class honors in third year piano. This is a very great honor, as pupils from the whole of the Dominion of Canada wrote on this examination." The Sanitarium wishes to congratulate Miss Gammage upon her success.

The Boys' and Girls' Club is one of the most pleasing and practical of the new features in the Sanitarium program. It keeps the children of the guests thoroughly occupied, so that they are no inconvenience and annoyance to any one and are themselves at one and the same time both amused and benefited by the healthful recreations of various sorts in which they receive instruction. They are taught various games and given gymnastic drills of various sorts, besides lessons in swimming. More than one hundred gymnastic games are taught by the Sanitarium instructors, all of whom have had thorough training in the Sanitarium Normal School of Physical Culture. A pony cart calls every day at both the main building and the Annex for children who care to ride, and quite frequently the little ones are treated to an automobile ride.

Many of the patients stopping at the Sanitarium this summer have brought their automobiles with them, and such are much pleased to find the great improvement which has been made in the roads about Battle Creek within the last year or two. The pavements of the city have been considerably extended, covering now several miles. The Prairie Drive is "fast" enough for anybody who does not care to drive faster than sixty miles an hour. Beadle Lake road is in fine condition and is really a charming drive. The trip to Marshall by the "River Road" and back of Beadle Lake for automobile parties is in great favor. Every year an increasing number of guests bring their cars with them. There are several excellent garages in the city and a number of good chauffeurs whose services can be secured at reasonable rates.

It is odd what opinions people sometimes form of an institution and its annexes. For instance, several people who have come to the Sanitarium within the last few days have been told that the main building was full and therefore they would have to take a room in the Annex or elsewhere. "Annex!" exclaimed one man in disgust, "we want a room in the main building or else we'll have to move on to some other place. We don't want to sleep in any two by twice annex." "Just a minute," said the cheerful room clerk, "I'll show you some rooms over there." After a few minutes' parley they decided to look at a room in the Annex. As the big building came in view there were exclamations of surprise. They were immediately accommodated in a spacious room, and to-day you couldn't coax those gentlemen away. The Annex is all right.

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HOW THE SANITARIUM FEEDS THE THOUSANDS

The Problem of Purveying is Managed by
Thorough System

WHAT to eat, how to eat and when to eat, are among the greatest problems of the day. Untold misery and troubles come from eating

Food Elements

Dr. W. H. Riley Discusses the Various Elements of Nutrition and States Their Place in the Vital Economy

THE object of food we have found to be to supply the body with two things—energy, for maintaining the bodily heat, and for muscular and mental work and carrying on the various functions of the body; and ma-

HELPS AND HINDRANCES IN DIGESTION

Doctor Kellogg Shows How Professor Pawlow's Observations Shed Light on What and How to Eat

I AM going to talk to you to-night about a subject that lies very near to the heart,—



THE SANITARIUM PLAYGROUND

what we should not eat. The Battle Creek Sanitarium diet system has solved the problem, and its list of adherents is growing rapidly day by day. Food experts for forty years have tried out this system and have found no equal. "Eat Battle Creek Sanitarium foods and become well," is becoming a proverb all over the country. A well-known Texas physician, who is also a publisher and author, remarked in conversation

(Continued on page four)

terial, for building up the body and keeping it in repair. There are six different food principles or elements, some of which furnish energy, some material, and some both energy and material. A study of these different elements will help us to an intelligent selection of our food to meet the varying needs of the body.

First of all, we have the carbohydrates. All the cereals, and the different foods made

(Continued on page two)

the stomach. This is one of the most interesting organs of the body, and yet it is one concerning which we have known almost nothing until very recently. About fifteen years ago, a now famous professor of physiology in St. Petersburg began experimenting with dogs, and discovered things before undreamed of; and as a result of these experiments we have at the present time some absolutely scientific knowledge in relation to digestion.

original from
UNIVERSITY OF MICHIGAN

Four years ago I went to St. Petersburg for the express purpose of seeing these experiments. One of the experiments consisted in making a small stomach out of a part of the dog's stomach, and connecting the small stomach with the skin, so that it could be examined at pleasure. The dog had nine-tenths of the stomach, and the physiologist had one-tenth for experimental purposes. Professor Pawlow found that when food was put into the large stomach, gastric juice identical with that formed in the large stomach was developed in the small stomach also. By examining the gastric juice that came from the small stomach it was possible

To Determine the Exact Effect

of different kinds of foods on the stomach.

It was found that certain substances would almost entirely prevent the flow of gastric juice; for example, fats would cause the stomach to produce no gastric juice at all. Olive oil was found to have more inhibitory power upon the stomach than any other food substance. The knowledge of this is of great practical value. If the stomach habitually makes too much gastric juice, olive oil taken in sufficient quantity will relieve that condition. That is why some of our patients who have hyperacidity are recommended to take a tablespoonful of olive oil at the beginning of the meal; it is simply putting the brakes on the stomach so that it will not secrete so much gastric juice. Olive oil is a great deal better than whiskey for that purpose.

Some years ago a great English physiologist, Sir William Roberts, made some experiments to ascertain the effects of alcohol upon digestion. He was sure beforehand that alcohol helped digestion, but he wanted to demonstrate it. His experiments, however, proved that

Alcohol Actually Hinders Digestion, that it precipitates the pepsin and diminishes the digestive power of the stomach. He then changed his ground, and said that what we need in this age is not something to aid digestion, but to hinder it; that modern cookery has so greatly increased the digestibility of food that we are likely to suffer from "an undue acceleration of nutrition." And, whereas he had started out to show that alcohol was helpful to digestion, he wound up by recommending it for the purpose of hindering or retarding it.

Olive oil will actually retard digestion in a physiologic way; it will notify the stomach that no more gastric juice is needed, and the stomach will recognize the order. But, on the other hand, for one who has an insufficient quantity of acid gastric juice, it is not a good thing to eat much fat of any kind. Such an one should take as little fat as possible, so that the stomach will not be hindered in its work of making gastric juice.

Another of Professor Pawlow's interesting observations about the stomach was that liquids caused the formation of a great quantity of acid. When a pint of water was passed into the dog's stomach through a tube, the stomach soon began to pour out a large amount of acid gastric juice. This suggests that

We Should Not Take Much Liquid at meals, because it is likely to over-stimulate the stomach and cause the formation of

too much acid. Patients sometimes complain that even water will sour on their stomachs. This acidity in ninety-nine cases out of a hundred is due not to fermentation, as the patient supposes, but to the excessive formation of gastric juice. This explanation has come to us through one of Professor Pawlow's most interesting experiments.

It was found that while a pint of plain water would cause the stomach to pour out an enormous quantity of gastric juice, if so small a quantity as one grain of soda was added to the water, it made no gastric juice at all. In this we see the tremendous evil that is wrought by the use of baking powders, saleratus, and other alkalies, and also the mischief that may come from the use of alkaline mineral waters.

Alkalies Hinder the Work of Digestion

by preventing the formation of gastric juice.

It was observed that as soon as a dog began to chew the food, and before he had actually swallowed any of it, the gastric juice began to flow out of the small stomach into a little glass flask attached for the purpose. Professor Pawlow then made an opening in the dog's throat, so that when the food was swallowed, instead of passing into the stomach, it dropped out and came back into the dish again. The dog ate his breakfast, dropped it back into the plate, and ate it over again, the gastric juice pouring in a stream out of his stomach all the time. That was

A Fine Lesson in Fletcherizing.

I saw a whole row of dogs that had been chewing their breakfast for four hours; each one had to produce a quart of gastric juice. This gastric juice is collected and sent all over Europe. This canine gastric juice is a great deal stronger and more active in aiding digestion than pepsin, which is not made from gastric juice, but is from the lining of the pig's stomach.

Professor Pawlow noticed that when the dog merely saw or smelled the food, the gastric juice began to flow just the same. You have had the experience of having the saliva pour out into the mouth at the smell of appetizing food. Now, when the mouth waters, the stomach waters also; this flow of gastric juice is simply

The Watering of the Stomach.

When the dog was hungry, the mere sight of the man who fed him passing through the room was enough to start the gastric juice flowing.

All of these things have a practical bearing. Food ought to have a pleasant flavor and to be relished in order to be well digested. When the dog was given food that he did not care for, there was absolutely no gastric juice formed, but as soon as he was given food that he liked there was a copious outpouring. These wonderfully interesting experiments led Professor Pawlow to form certain conclusions which he afterward verified, and which are of great practical interest. He found that the nerves of taste are connected with certain nerve centers in the brain, and that when we chew our food a notice is sent first to the brain, and then from the brain to the stomach, notifying it to be in readiness for the food that is coming. He

found that the more thoroughly the food is chewed, the more abundant is the flow of gastric juice. It is therefore of the greatest importance that the food should be thoroughly masticated.

The gastric juice produced while the food is being chewed, which Professor Pawlow called appetite juice, he found to be

The Most Important Element of Digestion.

This appetite juice starts the digestion of the food, and that part of the food that is digested becomes a stimulus to the stomach, causing it to produce more gastric juice to digest more food; the process once started is self-propagating. It is like a man making money; he makes a little money and that helps him to make more, and so he goes on getting rich. If the stomach has a little gastric juice to start with, it can, by digesting the food which is swallowed, create a substance which will stimulate the stomach to make more gastric juice; but there must be a little to start with. Professor Pawlow recommends his canine gastric juice, or, as he calls it, natural gastric juice, to be used as "igniting juice," to light the fires of the stomach, so to speak, and start the process of digestion.

FOOD ELEMENTS

(Continued from page one)

from the cereals, are rich in carbohydrates. Vegetables, such as potatoes and tubers of different kinds, also furnish quite a large amount of carbohydrates. Carbohydrates may be divided into several classes. First, we have cellulose, which is represented by the bran of the wheat, and by the fiber in the fruit and the vegetable,—a sort of very fine wood. The lower animals, particularly the herbivora, can digest cellulose; but it can not be digested by the human digestive apparatus. It is this fact that makes bran biscuit

A Valuable Food for Relieving Constipation.

If we could digest the bran, the biscuit would lose its therapeutical effect. It relieves constipation because the bran, not being digested and absorbed, furnishes the bulk which aids in moving the bowels. Cellulose, then, is not a food for man.

Starches are another form of the carbohydrate foods. The human digestive apparatus can not digest raw starch. Each little starch granule is enclosed in a tiny envelope composed of cellulose. The process of cooking breaks up this capsule and releases the starch. Starch is found in all the cereals and in certain vegetables and fruits.

In the form of sugar we have another carbohydrate. There are different kinds of sugar,—cane sugar, grape sugar, levulose or fruit sugar, and the sugar of milk. Cane sugar is more used as a food than any other, but it is not the best kind of food, and is quite unwholesome for some people. When taken in large quantities

Cane Sugar Irritates

the mucous membrane of the stomach; one who has an excess of acid in the stomach should not use cane sugar, because the irri-

tation of the stomach lining tends to increase the secretion of acid. It also increases the secretion of mucus in the stomach, which interferes with digestion. Cane sugar eaten in large quantities is apt to interfere with a good many other functions of the body. Grape sugar, the sugar of the grape and other fruits, is more wholesome than cane sugar. Levulose, the sugar of fruit, is also a very wholesome sugar.

We here use what we call Malt Honey, or Maltose. It is the same kind of sugar that is made in the mouth when starch is eaten. If a piece of bread is chewed for a few minutes, the starch that is in the bread is converted into a peculiar kind of sugar called maltose. Maltose is the commercial name for the same substance as maltose. We have to deal here with a lot of people who can not digest starch well, and that is the reason we manufacture this malt honey. It is predigested and

Ready for Immediate Absorption

into the blood, for the nourishment of the body.

This group of food elements, the carbohydrates, furnish the body with energy, but they make only one kind of tissue, which is fat, and can not be used for the building up or repair of the bodily structure.

Next, we have fats and oils. There is more energy in fats and oils than in the carbohydrates, but they do not lend themselves so readily to the use of the body; the body can not get energy out of them so easily as out of the carbohydrates, which contain the same chemical elements only combined in a different way. In addition to their food value, fats and oils have other qualities very useful to the body. One who has a high degree of acidity should take a liberal amount of these foods, as they inhibit the secretion of acid. On the other hand, one whose acidity is below normal should use them very sparingly. Fats and oils seem to have

A Stimulating Effect upon Nutrition,

and are therefore useful in wasting diseases, particularly tuberculosis. They are also useful for their laxative effect.

The next food element we will consider is acid. The fruit acids are the tartaric acid of the grape, the malic acid in the apple and other fruits, and the citric acid found in the strawberry, tomato, the lemon, certain oranges, and other citrus fruits. We have also the lactic acid of clotted milk. The value of these food acids has not been properly appreciated. Acid fruits, in addition to their food value, have a certain medicinal value. They are very good for one who has too little acid in the stomach secretion; not that the fruit acid in any way takes the place of the hydrochloric acid of the gastric juice so far as digestion is concerned, but

It Disinfects the Stomach

and destroys germs. In this institution we have made from fifty to one hundred thousand examinations of the contents of the stomach, and, so far as my own observation goes, at least, there has not been one case where the acidity was normal that germs were found in the stomach. Germs are never found in the stomach of a man who has a normal amount or an excess of acidity; but

they are found in the stomachs of those whose acidity is below normal. A very excellent thing in those cases is plenty of these fruit acids, because the germs will not grow in an acid medium; in that respect the fruit acid, though not entering into the digestion of the food, does some of the work of the hydrochloric acid.

Fruit acids are also valuable in a large number of chronic diseases. Normally the blood is alkaline, but in many chronic diseases its normal alkalinity is lessened. The acid that we take into our bodies in the form of fruit is changed chemically so that when it gets into the blood it is an alkaline chemical substance; in that way the alkalinity is increased and the tendency toward acidity is reduced.

Next in our list of food elements is salts, such as phosphate of lime, carbonate of lime, sodium chloride, etc. It has recently been discovered by some French physicians that the potato is a very valuable food

around this one element of protein. As a matter of fact, there is plenty of protein in the vegetable kingdom. It has been found by numerous recent experiments that the human family has been eating more protein than was necessary. Some authorities say that one-seventh of the food should be protein. In this institution we say one-tenth, and that is according to the latest investigations in Yale and European universities.

SWIMMING TOURNAMENT

AN unexcelled feature in the history of outdoor sports this year at the Sanitarium was the big swimming tournament last Thursday afternoon in the new outdoor gymnasium. There were twenty-nine contestants for prizes, six of whom were girls. The honors for distance swimming went to D. V. Graves, a member of the School of Physical Culture, who won the 50-yard dash in thirty-



REPRESENTATIVES OF ILLINOIS AT THE SANITARIUM THE FIRST WEEK OF AUGUST, 1911

In the Treatment of Diabetes,

the reason being that it contains potassium salts. We are now using it here for that purpose. The function of salts is to build up tissue; they enter into the composition of the blood, the muscles, and particularly the bones. The child who has rickets, crooked bones and deformed joints, has not had the proper amount of salts in his food to nourish his bones. The value of raw foods is partly due to the fact that they contain these salts, which are disintegrated and lost in the cooking process. The practice of using regularly a certain amount of raw food, such as celery, lettuce, radishes, or something of that kind is to be recommended.

There is another food element, protein. Protein contains carbon, hydrogen, oxygen, nitrogen, phosphorus, sulphur and iron, and sometimes magnesium. It is sometimes called nitrogenous food because it contains nitrogen. The principal function of protein in the body is to furnish material for building up tissue and repairing waste. It is a most important food element.

The whole question as to flesh-foods, whether they are necessary or not, revolves

five seconds, and the 100-foot dash in twenty-two and four-fifths seconds. The duck race was a very interesting feature. In this race the contestants had to catch the duck in thirty seconds, but the winner, Jack Robbins, of the nurses' department, succeeded in capturing his prey in fourteen seconds. In the "diving for girls" contest, Esther Hunter, a little tot of but nine years, won first prize. Among the girls Oneita Cassidy and Genevieve Edwards deserve special mention. Mr. Haylock entertained at intervals with fancy swimming, as did Prof. Albert Wagener in fancy diving. They were both appreciated. In the "distance for dishes" added feature, Merrill Read, son of Doctor Read, of the Sanitarium, was the winner. Although he is but ten years old, he managed somehow to gather eight dishes. None of the others gathered more than three. For high diving Glen Lichtenwalter, aged twelve, took first prize. He dove off the highest board, which is twenty-four feet above the water level. Doctor Kellogg donated nine pounds of Sanitas candy to be distributed among the winners, more especially the children. Other prizes donated by the Sanitarium through Mr. Judd were bathing suits, etc.

SANITARIUM FEEDS THOUSANDS

(Continued from page one)

with a friend a week or two ago: "I fully believe that the hygienic system, non-flesh-eating idea, together with temperance principles and abstinence from tobacco, coffee, tea, and flesh-foods, will ultimately become the rule instead of the exception."

But it requires something more than scientific dietetics to manage the food problem at Battle Creek. It is not a small proposition, that of

Feeding the Hungry Multitude.

Just think! there are nearly two thousand persons to be fed at every meal. In the institution there are four dining halls, and fully one hundred and fifty waiters, besides a great number of cooks and kitchen helpers.

The Sanitarium caterers cater to the best and cater with the best. When you eat from a table at the Battle Creek Sanitarium you know what you eat. You are aware, above all things, that here "cleanliness is next to godliness." Spotless linen adorns the tables, and the glassware is made to sparkle in the sunlight.

When a person sits down to a well-laden table his main purpose is to eat. You know what you can eat at one meal, then imagine what two thousand persons must eat. You just ought to visit the Sanitarium kitchens "before" that hungry crowd is served.

Bread is the staff of life.

Over Thirteen Thousand Loaves

of bread were consumed at the Sanitarium during the month of July. No wonder the bakers are kept busy twenty-four hours of the day. We do not presume that every guest is of Irish descent, but evidently every guest during the past month liked potatoes pretty well—three hundred and twenty-nine bushels of them are gone. Over ninety cases of lemons met the same fate. There's hardly any person that will miss a chance at good navy beans, and so went another five hundred and ninety-one pounds of foodstuff. Upward of seventy cases of cauliflower were consumed in the thirty-one days. Eggs were a big figure, there being over four and a half thousand dozen used. Among some of the other foods used and the consumption were: bananas, 178 bunches; cherries, 724 quarts; green corn, 774 dozen ears; 1,320 pounds of figs; 71 cases of grape fruit; 36 gallons of olive oil; 418 bushels of cantaloupe; 1,150 water-melons; 118 cases of oranges.

Sugar proved a large figure, there being five and a half thousand pounds consumed during just that one month of July. Of the beverages apple juice proved the most popular, five hundred and fifteen gallons being used.

Catering to the assembled masses in the dining halls of the Battle Creek Sanitarium is a problem of no mean extent. The system is different from that of other institutions. They do not feed you meat, and do not allow pepper, vinegar or mustard; but for each of these there are substitutes which have proven their real nutritive value, and at the same time shown how detrimental to the general health and well-being of humanity such foods as meat and pepper are. Some people

have called these ideas fanatical. But all people do not know. Greater and wiser men than those who assert this system is fanatical are to-day shouting its praises; men who once were unbelievers are believers. Why is it? Experience has proven a good teacher.

The Sanitarium bill of fare is by no means a meager or uninviting menu. The tables are laden with delicacies that touch the palate, with foods that are both wholesome and palatable.

Following is a sample of the menu served at dinner at the Sanitarium:

Dinner—Tuesday, August 15, 1911

SOUPS	
Tomato Bisque	Navy Bean Soup
ENTREES	
Protose Steak—Gravy	
Nut Irish Stew	Walnut Roast
VEGETABLES	
Baked Potatoes—Brown Sauce	
Browned Potatoes	
Green Corn	Beet Greens
RELISHES	
Sliced Tomatoes	Cabbage Salad
Celery	
BREADS	
Whole-Wheat Bread	White Bread
Entire Graham Bread	Breakfast Toast
Toasted Granose Biscuit	
Toasted Rice Biscuit	Bran Biscuit
Corn Bread	
Nut Butter Dairy Butter	
COOKED FRUITS	
Strawberry Sauce	Steamed Figs
Malt Honey	
BEVERAGES	
Apple Juice	Grape Juice
Caramel Cereal	
Cream	Sugar
Cream and Milk	Sanitas Cocoa
Hot Malted Nuts	
Milk	Yogurt Buttermilk
DESSERTS	
Apple Tart	Fresh Pears
	Brazil Nuts

MORNING STROLLS

"I'm going for a walk; who wants to come along?" The one who tossed this question into a group of patients basking in the early morning sun on the lawn of the Sanitarium was a girl. Her invitation met with a response that seemed to indicate popularity, if one were to judge by the instant uprising as they made ready for the early morning's stroll through picturesque country drives or pretty avenues.

Occupy a bench on the Sanitarium lawn between the hours of six and seven o'clock in the morning and you will see scores of patients forgetting their ills and joining in the daily promenade. "Where do they go?" you ask.

About three miles from the Battle Creek Sanitarium is situated a beautiful body of sparkling aqua known as Goguwac Lake. Beside the cool waters of the silvery lake, with vistas of green fields in the distance, the summer sojourner at Battle Creek finds an ideal resting-place, for it seems that the woods, the fields and the water are necessary to mental and physical recreation.

Goguwac Lake is but one of several places visited by Sanitarium guests in their strolls. There's Spring Lake, much nearer at hand; St. Mary's and Beadle Lakes, a little farther away. The country is dotted with inviting spots for pedestrians; the scenery is varied and everywhere beautiful and restful. Nature has dealt kindly with Central Michigan in all particulars, as though she had the establishment and support of a great health institution in mind when this locality was mapped out, and its natural advantages were appointed.

CHATS WITH GUESTS

C. B. STEPHENSON, president of the Stephenson Underwear Mills, the largest manufacturers of underwear in the world, at South Bend, Ind., who is a frequent guest at the Sanitarium, says: "I am one of the regular *habitues* of the Battle Creek Sanitarium, having spent from two to eight months here each year since 1901. I regard it as one of the greatest institutions of any kind in the world, and in my judgment it ranks next to the church in the importance of its relations to mankind. It is both educational and philanthropic in its scope, relieving afflicted humanity and teaching the people how to live." The superb grand piano which ornaments and enlivens the main parlor is the gift of Mr. Stephenson and his brother in recognition of their appreciation of the Sanitarium.

REV. LEWIS BROWN, Ph. D., rector of St. Paul's church, Indianapolis, Ind., one of the most prominent clergymen of that city, declared: "It is with the greatest pleasure that I learn of the continued success and wonderful progress of the Battle Creek Sanitarium. I have known its work by personal contact for the past twenty years. I am amazed at the improvements added year by year. There is no institution of a like character in this country which is doing so much for the health of the people. To scientific methods, approved by experience, there is added such sound counsel and helpful suggestions that the guests go away with a new vision of life and are benefited constantly. The physicians deserve the highest commendation for their labors in the cause of health. The entire faculty are men and women consecrated to health-promotion. The blessed results obtained are consequently no marvel."

JOHN STERLING, stationer, Watertown, N. Y.: "When one has been cured of a trouble that has pulled him down for years he can not but feel kindly toward the place and those that brought him health. For a number of years prior to 1907 I had frequent attacks of biliousness of a very severe nature. These attacks were getting more frequent and more severe. Following the advice of several doctors I went to curative springs to find only temporary relief. In March, 1907, I came to the Battle Creek Sanitarium, was put under the care of one of the doctors and carried out his orders to the letter for six weeks. At the end of that time I went home completely cured. I then adopted the Sanitarium diet at home, gave up meat, tea and coffee. Took a hot and cold shower

ods and ways of this great institution we have gained such confidence that we cease to worry very much. I have only kind words for the Battle Creek Sanitarium."

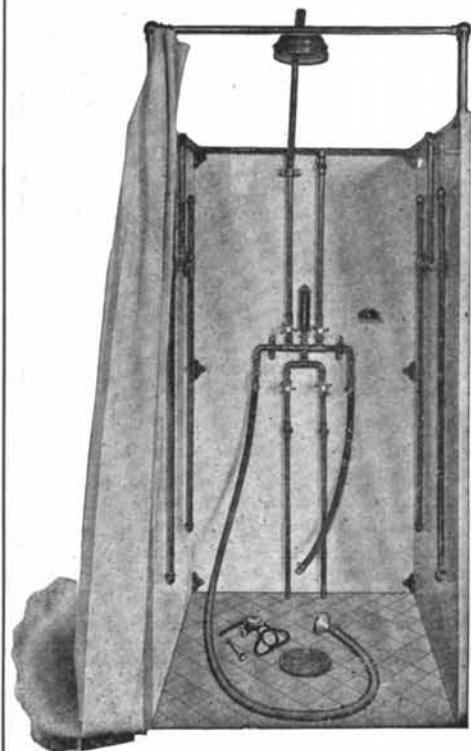
ARRIVALS

THE list of arrivals at the Battle Creek Sanitarium for the week ending August 13 is as follows: J. M. Haynes, Tenn.; Dr.

Maxson and daughter, Calif.; Melvin Menges, Cuba; Brandon Haynes, Tenn.; Harper Reed, Mich.; Ira B. Ford, Chicago; Irving B. Waterbury, Cleveland; E. Ward, Mich.; Wm. Burtless, Mich.; Mrs. Hampson Gary, N. R., Royal, Franklin, and Helen Gary, Tex.; J. W. Pollard, M. D., Los Angeles; R. C. Rudisile and sons, Ark.; Maria Hinnens, Milwaukee; Mrs. L. S. Knollenberg, Edw. F. Welstein and wife, and C. J. and Miss Ellen Meddis, Ky.; Mrs. Chas. and

Miss Irma Gottman, Ind.; M. T. Eaker and wife, and Mrs. Josephine Konda, Tenn.; P. F. May, Pittsburg; J. H. Cox and wife, Eugene Cox and Dr. C. C. Gunnells, Ark.; Mrs. M. C. Schwartz, M. Schwartz and C. R. Buchanan and wife, Detroit; Eleanor A. Mensch, Mich.; C. A. Snodgrass and wife, Mo.; A. L. Wyman, Chicago; J. T. Mitchell, Mo.; Dr. D. D. Potts, Neb.; Mrs. W. Weatherford, Tex.; Irene Hoxie, Ill.; Mrs. S. P. Burstein, Cleveland; Chas. Williams, Jr., Harriet E. Williams, and Mrs. F. T. Williams, Ind.; S. H. Hancock, Tex.; Dr. R. E. Brokaw, Ind.; Mrs. Walter Connally, Tex.; Mrs. C. G. Robbins, Ind.; H. H. Pierce, Detroit; Tom Evans, Wash.; Jas. Palmer, Tenn.; Mrs. H. O. Davis and Louis E. Davis, Ill.; Mrs. B. S. Work and daughter, and Joseph S. Wood, Ohio; F. Lorne Pengally and wife, Philadelphia; Mrs. A. J. Offenhause, Ark.; W. C. Monard and wife, Tex.; Mrs. J. H. Luther, Ill.; W. E. Williams, Okla.; Mrs. R. E. Russell and Mrs. S. R. Fox, O.; T. B. Badt, Chicago; Mrs. L. A. Dubson and daughter, Ill.; M. B. Craighead and Mrs. J. B. Craighead, Mrs. J. M. Gear and Mrs. Elmer, Ind.; Miss Emily Helming, Indianapolis; Jas. LaFountain, Ind.; Jack Ames and wife, New York City; Mrs. H. M. Armstrong, Ont.; Dr. Mary R. Neeland and Mrs. J. J. Edwards, Chicago; Mrs. Lauf Schruher and J. O. Barry, Mo.; Mrs. L. M. Bilser, Ark.; Mrs. Frank E. Caldwell, J. Clayton and Calvin H. Caldwell, N. Y.; C. J. Luther, Ill.; Peter Armbrucher, O.; J. A. Hamilton and family, Ill.; Mr. and Mrs. H. E. Turry, N. Y.; Maud W. Morey, Chicago; Mrs. P. L. Coacher, B. F. Taylor, Miss C. A. Coan, and S. E. Taylor, Pa.; D. E. Hectie, Cleveland; C. T. Moore and F. Moore, Mich.; Wm. Lackinsky, Cleveland; Lawrence B. Davis, Indianapolis; Mrs. S. B. Lefern, Ia.; Bessie Cohen, Philadelphia; Lutie Olmstead, Wis.; Mrs. M. Jackson, Tex.; Misses Annie and Eleanor Jackson, Va.; Mrs. W. W. Boyer, N. Y.; J. A. Hart and wife, Mich.; Geo. S. Lins-

"The Greatest Tonic in the World"



¶ You have still to enjoy the greatest tonic in the world if you are not yet taking a cold shower—rain, needle, or spray—every morning. Nothing in all this wide world can equal it as an eye-opener, appetizer, and invigorator. It makes you all aglow with that fine feeling that life is worth living.

¶ Would you pay a hundred dollars to enjoy this luxury in your own home every day for the rest of your life? It sounds incredible, but that is really all you have to invest to secure the KELLOGG HOME DOUCHE, which can be installed in your own bathroom, ready for immediate use at your own pleasure.

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¶ The Kellogg Home Douche gives you in a more convenient form practically the same advantages as the

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PRICE:

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Duck Curtain and Curtain Rod, extra	10.00
Three Kiln-dried Hardwood Slabs with wood basin and floor drain (the wood basin is to be filled in with cement by your mason), extra	35.00
Good Health, Slate Slabs, each, extra (wood slabs just as serviceable)	15.00
Battle Creek, Marble Slabs, each, extra	35.00

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Good Health Publishing Company

Battle Creek, Michigan



If your bowels don't move well every day, why don't you try

COLAX

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Constipation

comes from its water-holding properties. It slips through the intestine, carrying away the bacteria and poisons.

Send \$1.00 for large package.

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News and Personals

James J. Hill says there's plenty of money in the country. But many of us live in town.

Judge C. P. McKinney, Ripley, Arkansas, was among Monday's arrivals. The judge expects to recuperate for a few days.

Recent rains have worked wonders to the crops on the Sanitarium farms. The vegetables couldn't look better—nor taste better.

Rev. Melvin Menges, pastor of the Disciples Mission at Matanzas, Cuba, is here. This is the clergyman's first visit.

W. F. Holden and wife, of Kansas City, Mo., expect to remain with us a few weeks. Mr. Holden is a fire insurance adjuster.

L. B. Davis, a prominent attorney of Indianapolis, Ind., who has previously been a guest at the Sanitarium, is with us again for a short visit.

An eminent banker of Belle Vernon, Pa., Mr. B. F. Taylor, arrived the latter part of last week for a few weeks' recuperation and treatment.

S. H. Hancock, of Paris, Texas, was recommended to the institution by Judge H. H. Lennox, of Clarksville, Tenn., and will spend a few weeks here.

P. Armbruster, head of the Armbruster Cigar Co., Urbana, Ohio, arrived a few days ago to spend a couple of weeks. This is Mr. Armbruster's first visit.

J. Clayton Caldwell, son of the eminent Dr. J. B. Caldwell, of Brooklyn, N. Y., who has been at the institution several times, is back again for recuperation and treatment.

The evening exercises in the gymnasium are becoming more and more popular every day. There are some nights when the crowds reach considerably into the hundreds.

This past week has witnessed an endless chain of arrivals. It has been a very busy week for the clerks and the management in general. Heretofore August has been our busiest month, but July this year far eclipsed even August a year ago.

Sam Rabin, assistant chief designer for Hart, Schaffner & Marx, the world's largest clothing concern, was among last week's guests at the Sanitarium. Mr. Rabin was highly pleased with the diet and the cool sleeping quarters.

Dr. D. H. Kress, of Washington, D. C., spent a short time with old friends and associates at the Sanitarium during the past week. Dr. Geo. Thomasop, of South Africa, and Mrs. Thomason are also spending a few days in the city visiting friends.

Among the eminent clergymen at the Sanitarium this week are Rev. J. H. Jenkins, pastor of the New Hope Baptist church, Waco, Texas, and Rev. Lewis Brown, Ph. D., rector of St. Paul's church, Indianapolis, Ind., and formerly pastor of St. Thomas church of this city.

The Annex is proving to be a very popular home for the Sanitarium patients, three hundred and eight of whom are domiciled there at the present writing. There is an air of comfort and quietness there that is certainly very acceptable and helpful to those who are seeking rest for tired nerves and brains.

During the past two weeks there has been a remarkable influx of medical practitioners from different States. Among these are D. D. Potter, M. D., of Seward, Neb.; J. W. Pollard, M. D., Los Angeles; L. A. Earle, M. D., Anderson, South Carolina; R. E. Breshaw, M. D., Portland, Ind.; C. C. Grinnell, M. D., Mena, Arkansas.

Sir Horace Plunkett, F. R. S., the eminent economist of Dublin, Ireland, who has done so much to improve the condition of his countrymen, writes to a friend at the Sanitarium that he will visit the institution again in December for a few weeks. He is a thorough believer in the low-protein idea and Battle Creek Sanitarium methods in general.

A distinguished guest this week is J. E. Boyce, president of the Cotton Belt Savings and Trust Company, Pine Bluff, Ark. Citizens from Pine Bluff at the Sanitarium this summer recommended the place so highly that, while he first intended going elsewhere, he was induced to change his mind and come to Battle Creek.

We are pleased to have with us Eugene Cox, banker and wholesale grocer of Mena, Ark. Mr. Cox brought his father and mother. His father is in very poor health, but considerably better than when he first arrived a few days ago. Eugene Cox is a well-known politician in his city, having been for a number of years a member of the city council of Mena.

The Sanitarium Missionary Museum is the recipient of a fine collection of Chinese models showing the costumes worn by various classes in China, the dresses being in close conformity in both color and form to the clothing actually worn. This valuable gift is from Dr. Geo. D. Lowry, of Peking, who occupies a prominent place among medical missionaries in that country. In behalf of the museum we extend to Doctor Lowry our sincere thanks.

A musical treat is promised the Sanitarium family on the evening of the 26th inst., when Miss Alice Pinch, a pupil of Jean de Reszke of Paris, will sing. Miss Pinch returns home from her studies bringing words of high praise from critics, who predict for her a brilliant career in the musical world. Miss Ruth Pinch will act as accompanist, and will furnish several instrumental pieces, including arias from Traviata, and Madame Butterfly, as well as other popular solos.

Messrs. C. T. and F. Moore, of St. Clair, Mich., are again with us and are made welcome by many friends. These gentlemen are frequent visitors at the Sanitarium, believing in the principle that prevention is better than any cure, and so prefer to keep themselves well. The Moore brothers may well be called "the salt of the earth," not only for their sterling qualities among business men, but also because they are extensively engaged in manufacturing the "salt that is all salt," that makes St. Clair famous.

Among the prominent guests this week are Edgar Eyzell, vice-president of the Swann-Abram Hat Company, of Louisville, Ky.; A. W. O'Hara, attorney, Carthage, Ill.; Joseph S. Wood, superintendent of the Mail Transportation Club, New York; John T. Mitchell, Centralia, Mo., banker; L. Ferrer, student, Ponce, Porto Rico; R. R. Haynes, manufacturer of cotton goods, Cliffside, N. C.; A. J. Greif, manager for the

American Sugar Company, Porto Rico and New York; J. A. Munro, attorney, Moosejaw, Sask.

The Christian Endeavor meetings on Friday evening were resumed last week after being intermitted for the Chautauqua. The attendance was large and the theme of the evening, "The Beginnings of Temperance," was placed in the hands of Dr. W. F. Martin, who conducted a most interesting and helpful service. The Evensong and Prayer for the Sick services are conducted daily in the small parlor off the main parlor at 5:20 daily except Tuesday. These are found to be a source of help and encouragement to many of the guests.

Never in the history of the Battle Creek Sanitarium has outdoor exercise and swimming proved so popular with the guests as it has this year. The outdoor gymnasium for women is occupied from morning until night, the men's outdoor gymnasium is equally well patronized. Swimming is one of the most delightful of all exercises. Most of the patients swim either in the indoor or outdoor pools. Men and women sixty and seventy years of age with the help of skilled instructors learn to swim within two or three days, and with the aid of water wings soon become independent.

The clinical laboratories of the Sanitarium, which have long been recognized as the most extensive in the world, have been so crowded during the last three months that it has been necessary to increase their capacity by the addition of a large new laboratory, which will be devoted entirely to examination of intestinal discharges. Great attention has been given to the study of this subject in the Sanitarium, probably more than in any other place in the world. An examination of the stool as well as of the urine is made in the case of every patient who visits the institution. This examination is not a mere cursory inspection but an exhaustive examination which throws great light on many obscure cases.

Many are the people who come to this institution to-day who came here with their parents in their youth. There are many here to-day who can tell of the organization thirty, yes, forty, years ago. They remember the two-story building that once housed the entire institution; they can tell you of the added structures as time rolled on; and then they tell of the gradual outgrowing of these frame buildings and the erection of the greatest of all institutions of its kind—the Battle Creek Sanitarium of to-day. Among guests at the Sanitarium this week who remember the place as it was thirty years ago is George Strubinger, a farmer near Marshall, Ill.

The men nurses of the Sanitarium had a lively time on Tuesday evening a week ago, when they tendered the male nurses of the 1911 class a social. The event, which was held in the bathroom chapel, was an enjoyable one from start to finish. Mr. Quail, who is in charge of the men's bath department, upheld the profession in a short but witty speech; Mr. P. S. Staines gave an

amusing account of chiropractics; Doctor Grey told of some of his interesting experiences as a nurse; Mr. Barker represented the class of 1911 in a short oration, in which he handed down some good advice for the 1912 class. Many witty remarks were made, the brightest wit of the evening being Mr. Adler, of New York, whom the boys are wont to call "professor."

One of the most hopeful signs of the times as indicating the reviving interest that is shown in matters pertaining to health is the new attitude on this subject assumed by the life insurance corporations whose interests are greatly promoted by the lengthening of human life. The Equitable Society announces the organization of a department for the conservation of human life. Through this means the Society purposes to extend its powerful influence in assisting any movement having for its end the preservation of life and health. "It is our intention," says the circular, "by every consistent means of publicity to stimulate and develop public sentiment in support of the public service rendered by the medical profession." The lines on which their influence will be cast will be in full accord with the principles so long taught by the Battle Creek System, so far, at least, as relates to general principles of health and hygiene. Even if there be some element of commercial interest in this move, it can only result in great good, and we welcome the great insurance corporations into the field of health conservation.

In Washington the police are busy enforcing an ordinance that every city in America should enact and enforce, and which the Board of Health of Battle Creek has already successfully carried out. The measure requires merchants to keep under cover all kinds of fruit and berries that do not require the removal of the skin for eating. The violators of the regulation seem to be totally oblivious of the possible evil to which they are thus subjecting their patrons. The enforcement of this law in summer is an important consideration, as there are so many germ-carrying flies ready to inject their poison into the food if they are but given a chance. While the health of the public would be conserved by a law compelling vendors to keep food under cover and protected from flies, a good deal may be done by the protests of individuals who observe that the grocers or fruiterers they patronize are not careful about keeping their places clean in this manner. If housekeepers would transfer their patronage to the traders who have a decent regard for cleanliness, vendors of fruit could be persuaded that it is best not to sell fly-blown food.

In conjunction with the Michigan Agricultural College, the State Board of Health is sending out a railway train fitted for teaching and demonstrating matters relating to health and hygiene. The train consists of nine cars, three of which are for lecture halls, five for agricultural exhibits and charts, while one is fitted up with charts, diagrams, specimens, and literature relating to the work of the Board of Health. Many features of home and commercial life are illustrated and startling revelations set forth

showing the dangers that threaten human life in the ordinary walks. Milk contamination is quite fully shown up. On a dark background over 1,500 little china dolls represented as many babes brought to untimely death during the past year in Michigan cities by impure and unwholesome milk. The dangers of tuberculous infection are also set forth, and practical instruction is given by competent instructors under the direction of Doctor Dixon, the able secretary of the Board. The exhibition visited Battle Creek on the 11th instant, and was attended by a large number of people, the Sanitarium guests being largely in evidence.

Mr. A. J. Greif, of Guanica, Porto Rico, accompanied by Mrs. Greif, is again with us. These friends make a visit to the Sanitarium each year, and are devoted to the principles and practices which conduce to sound health. Mr. Greif has many people dependent, at least measurably, upon him in the island. He stands at the head of two of the largest, or the very largest, sugar industries in the world, and thousands of people find employment in the mills and plantations under his control. Nothing is left undone by him to promote the health of his people. For some years he has regularly employed physicians and nurses from the Sanitarium who minister to the health of the community and surrounding country. At present Dr. John F. Morse and his wife, Dr. Jean Whitney Morse, two honored members of our medical faculty, are there. Mr. Greif informs us that Doctor Morse gained distinction at once in his profession by passing the highest state examination ever passed in the island, and has been appointed sanitary inspector in that district by the government. Doctor Smeck, of the American Medical Missionary College, and Miss Eva Evans, a Sanitarium nurse, are also looking after the welfare of the people and instructing them in the art of proper living.

The cablegrams say that Paris and Berlin are sweltering under a heat wave quite as severe as that which recently passed over a large part of America, and that eleven persons were killed by heat in one day in the French capital. The mercury reached 97 degrees in Paris and 96 in Berlin, with an unofficial street temperature of 104. Heat deaths and prostrations are reported from various parts of Germany, and even seaports contribute to the list. Stettin and Hamburg report intense suffering. Many persons who fled to the lakes found no relief. That heat is not altogether a matter of latitude, even at equal altitudes, is illustrated by the greater temperature and suffering in some of the cities of Northern Europe than in those of the South. The same phenomenon is frequently observable from a study of temperatures in the cities of the North and South in the United States. Many wandering Americans who have been accustomed to think of their climate as the most variable and trying in the world have been disillusioned by freezing under blue Andalusian and Italian skies upon winter and spring journeys, and occasionally one who has escaped the rigors of summer in the Ohio Valley is surprised to find discomfort and danger to health and life in Germany and France.

THE BATTLE CREEK IDEA

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The Battle Creek Sanitarium Out of Doors

OUT OF DOORS FOR HEALTH IT PAYS TO BE GOOD

How the Sanitarium Patients Are Lured into the Open and Brought Next to Nature
—Walking Parties, Swimming, Tennis, and Attractive Lawns

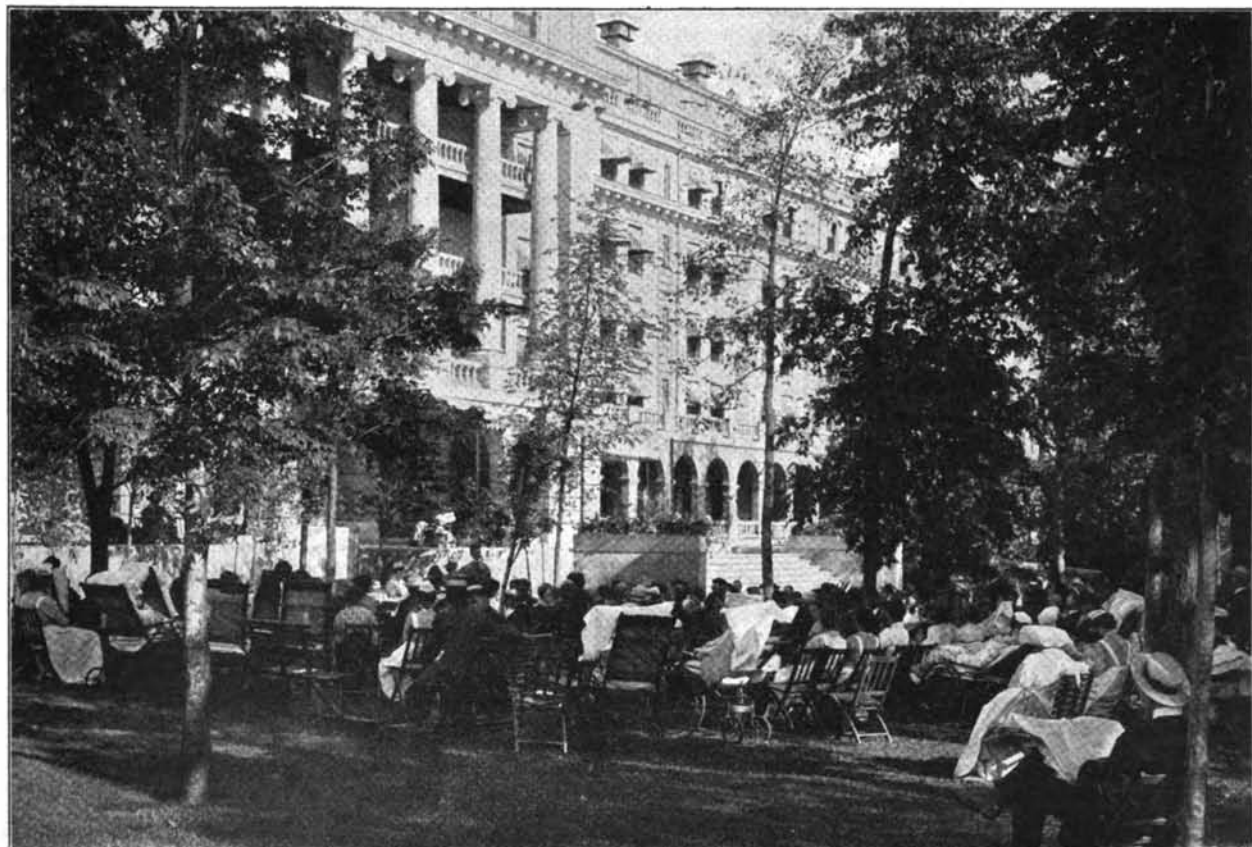
PERCEIVING the fact that man is by nature an out-of-door creature, and that the contrivance of four walls and a ceiling is an altogether artificial expedient, good in certain emergencies, but not a normal condition, the Battle Creek System seeks to lead people to adopt as far as practicable the outdoor life.

That sedentary employments and confinement in houses are conducive to diseased conditions is a generally accepted fact. It requires but a glance at invalids to prove

(Continued on page two)

Straight and Plain Talk by Doctor Kellogg
to His Patients Gathered in the Sanitarium Parlor—In Order to Live
Well, We Must Live Right

EVERY human experience goes to show that it pays to be good. To illustrate this, permit me to refer to the case of a gentleman who came here two or three years ago from a Southern State and is here now with a won-



derful story to tell. This gentleman came here with a death sentence over his head. He was just about ready to die. His blood-pressure was reduced to 14. Some of you are worried because your blood is down to 85 or 90, and it is bad enough to have it there, but his was 14, and he was as white as a sheet, and we put him to bed the very first thing, and had to keep him in bed for a long time.

He Recovered without a Drop of Medicine, or a particle of meat or meat extracts, and I am very proud to be able to tell you he has not eaten any meat since he left here, so the good blood he now has can not be attributed to beefsteak. He has brought back his blood almost up to normal, and has not tasted flesh of any kind in these two years, and has not taken a drop of medicine. I did not cure him. The Battle Creek Sanitarium did not cure him; but he got well because he conformed to the laws of his being and the principles of nature. That is the reason.

There is nothing in the world like getting into harmony with the universe. If we get out of the natural order we suffer every time. If a man undertakes to defy the law of gravitation by voluntarily stepping out of a fifth-story window into the open air, he comes down on the pavement and is smashed. It is just the same with the man who says, "I will not recognize the laws of digestion; I defy the physiology of digestion, I refuse to observe it." Sooner or later he has to come to the Sanitarium to do penance. Indeed, he has to

Do Works of Supererogation

all the rest of his life. Good Catholics know what works of supererogation are—works of supererogation imply being extra good, better than the law requires. That is what every one of you who has defied physical law has to do. There is no use in thinking that you can do penance here for awhile, and then after you go away from here go back to the old ways you practiced before you came here. You can not do so and live. Your very health and life depend upon living up to the light you get while you are here. You come here to be informed, and you get enlightened. Now, if you go back to your old transgressions, you will be punished perhaps worse than before.

Perhaps you say, "If I return to my old habits and get into trouble I can come back to the Sanitarium and get fixed up again."

Don't You Believe It,

my friends. While it is possible that might happen, I want to tell you that the man who hackslides, then comes here again in a relapse, is a hard case to deal with, and after a very few such experiences he generally fails to get out of it; he dies. So if you have had a trouble serious enough to bring you here, it is serious enough to make it a matter of business and to treat it in a businesslike way. If you have made a mistake in business once and lost a hundred thousand dollars, gone into a receiver's hands, I dare say you said to yourself, "If I ever get out of this, I will never get in again. I will take care never to make that mistake again. I

will not go to signing notes for people; I will not make risky investments; I will do business in a safe, sound way."

That is just exactly what you have to do about your health.

You Are in Receivers' Hands Now.

This is a bankruptcy court here, and I am doing my best to say things to you that you will remember. You should not forget them, because forgetting gets us into trouble. You must act upon these things on the very same principles which are followed in business. You must do it. There is no other way in which you can hope for any substantial results. If you are going to get well and stay well, you will have to keep right on doing the things that helped you to get well. You are not cured by any sort of hocus-pocus, or "tricks of the trade."

A man came here to-day and wanted us to hire him. He said, "I believe in animal magnetism." He was a large, stout looking fellow, and he said, "When I lay hands on a very feeble patient, I feel strength going out of me to the patient; I feel weak afterward." I said, "You are just the kind of man we do not want." So I smiled him out, told him we had no place for him, and that he would find this such an uncongenial atmosphere he could not stay here if he tried; and so he went away. You have not been cured by any such means as that.

We tell our patients that

They Are Sick Because They Are Sinners,

that they have done wrong; their habits have been wrong, they have fallen from grace, and have come down from the high level of health and happiness, to the miserable lowlands of disease and sickness. The only way to get back is by right living; and the only way to stay back is by right living. I hope you will not forget what I am telling you, because I am very much in earnest about it; I am not talking for entertainment, I am talking earnestly so we will not have the pain of ever seeing you here again as invalids. If you will come back once in a while to show us how well you are, like this gentleman, all right. We have several other people here now who are here simply to show us that it pays to be good, to follow these principles.

Now I must tell you that these principles are

Not Battle Creek Sanitarium Principles at All.

We only call them Battle Creek Sanitarium principles just to get people to come this way so we can introduce them. But the principles that are taught and practiced in this institution are older than the hills; they have existed from the very beginning of things. They grow out of the nature of things. In the first chapter of Genesis, you will find the bill of fare laid down for human beings. God told man what to eat. He said to him, "Every tree bearing fruit, and every herb bearing seed, to you they shall be for food." So fruits, nuts, and seeds, or grain, were to be the diet of man. Later man was told that he must earn his bread by the sweat of his face, he could eat after he had sowed his seed, and after he had sweated and cultivated it. Then he was told, "And thou shalt

eat the herb of the field." So he had permission to eat vegetables, tender leaves, and shoots. He was apparently content till after sin, enmity and violence came in and caused bloodshed, which led to the devouring of one animal by another and so a passion for flesh-eating was created.

The divine approval of this arrangement was expressed in these words: "And God saw all that he had made and, behold, it was very good." So it is written, that God made man upright, but he hath sought out many inventions. The thing for him to do is to return to the upright principles upon which the race was established, and through which alone can be found health, life, and happiness.

OUT OF DOORS FOR HEALTH

(Continued from page one)

that most conclusively. By far the greater part of the patrons of the Sanitarium are those who in their daily occupations or habits are

Deprived of Sufficient Activities in the Open Air.

In this fact is to be found the cause for much of the debility and decadence that are so manifest in the civilized people of to-day.

Therefore it is a very common thing to hear the doctor say, "Keep out of doors all you can; take plenty of exercise in the open air; sleep out of doors; keep doors and windows open as much as possible." This idea is nothing new about the Sanitarium; it has been inculcated and urged upon patients for many years, and the conviction that it is the thing to be done is becoming even more fixed and general than ever.

How does the Sanitarium seek to induce people to take to the open? First, in all the lessons and lectures given throughout the year, this is insisted upon, and in personal advice people are urged and exhorted to spend their time out of doors. They are induced to stay out of doors by the

Most Attractive and Comfortable Lawns

that it is possible to produce. Patients that are too feeble to exercise much are encouraged to spend a large portion of the pleasant days (and there are but few unpleasant ones) in wheel-chairs, couches, or reclining chairs on the shaded lawns. The Sanitarium lawns always in warm weather look like a vast picnic ground enlivened by groups of people or separate individuals, their varicolored wraps and attire combining with the grass, foliage, and flowers to compose a scene of great beauty.

But the most of our guests are able to be about, and so one of the physical directors acts as a leader and guide, and

Strolling Parties

are led forth on some of the delightful roads and paths leading to groves, brooks, and lakes, or gardens, with which the surrounding country is abundantly supplied. Good cheer and pleasant conversation keep the thought of weariness far away, and at the finish the walkers are conscious of having had a splendid time, of having taken in new

life and vigor; and it is surprising how the ability to walk without weariness increases. People who at home find it difficult to walk a few blocks, here pace off three or four miles as a pleasure; and it means health, life and happiness.

Another out-of-door attraction provided by the Sanitarium consists of the well-fitted

Outdoor Gymnasiums and Swimming-Pools.

There are two of these, one for ladies, and one for gentlemen. They are complete in every respect, and afford every facility for healthful exercise. They are under the care of competent instructors, and the art of swimming may be learned by any one so disposed. Sand-piles, ladders, spring-boards, and other paraphernalia are at hand.

Then, too, there are the best of tennis courts—five of them, and this fine sport combines with pleasure the very best forms of physical exercise. The running track is open to those who desire to take this more strenuous form of exercise. The lap is one-seventh of a mile, and the track is kept in the best possible shape.

These are but a part of the ways in which the Battle Creek Sanitarium seeks to

Lure People to More Natural Ways of Living,

which always mean better health, more vigor, and consequently more happiness and pleasure.

While the Sanitarium undertakes to furnish comfortable and attractive quarters for its guests inside and under good cover, so that no one will feel neglected in that respect and no one will feel that he is forced into what he does not like, the inducements are to go outside and enjoy the free fresh air that God has made so abundant and that is charged full of life and energy.

Even in winter, when the body naturally shrinks from contact with the cold, it is better to overcome that aversion, and with the body sufficiently protected, to seek the outdoor air. It is confinement in close rooms that conduces to colds and to pneumonia, and renders the body subject to the various diseases that prevail in that season of the year. But at this season, during the bright golden sunshine of the early autumn, no better tonic can be found than the fresh air, no better place can be found than the free out-of-doors.

AN INTERESTING LETTER FROM CHINA

A LETTER has come to us from an eminent professor in a Western university who for several years was official interpreter at Shanghai, and a life-long friend of Hon. Wu Ting Fang, the former Chinese minister to the United States, who, while in this country, became convinced of the very great value of Sanitarium principles and adopted them. He was a guest of the Sanitarium for some weeks, and while here repeatedly stated his hearty approval of the entire system of diet and treatment of disease. The Professor has recently spent six weeks in Shanghai and writes of his experiences there,

and from his letter we take the liberty to make the following excerpts:

"During my stay in Shanghai I was frequently reminded of the Sanitarium and the great work it is doing by our mutual friend, the ex-Chinese minister to Washington, His Excellency Wu Ting Fang. The impression made upon him while there was a deep and lasting one. You will be interested to know what he is now doing to promulgate the principles he learned while there.

"He lives in an elegant mansion in Shanghai, and is building a still larger one near by. Without the least fear of ridicule from his fellow countrymen he is boldly advocating by both precept and example what he believes to be the correct and normal ways of living, and the only way to secure the longevity to which every Chinaman aspires.

"He invited me to a sumptuous dinner at



SANITARIUM PATIENTS ON THE SHORES OF GOGUAC

which there were twenty guests or more present. Every other dish was prepared from the Sanitarium health foods, and gave great satisfaction. During the banquet Wu Ting Fang took occasion several times to refer to the Sanitarium and the reforms inaugurated there. It would have encouraged you greatly there you have been there.

"On another occasion he invited me to a joint meeting of the 'Rational Diet' and the 'Anti-Cigarette' Societies. The meeting was attended by many influential Chinese gentlemen. Mohammedans, Taoist priests, and Christian converts were present, and free discussion was the order of the day. During the discussion it was pointed out that it was of little use to preach vegetarianism while there was no place in the city where the proper food could be procured. This led to the formation of a company that will at once provide an elegant restaurant where proper food will be served at reasonable prices. The capital of the company is \$5,000, in shares of ten dollars each. I at once became a shareholder in this, the first vegetarian restaurant ever known in China since the world began. May it prosper!"

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 topics.

QUESTION. Are eggs good food for one who has autointoxication?

ANSWER. No; eggs are one of the foods most productive of autointoxication. Some experiments were made with the students in the college here some time ago, in which the students were put on special diets. It

was found that those who were using eggs in their dietary eliminated a much larger amount of indican than those who were not using eggs. The egg decomposes very readily; it is rich in protein, and is not the most desirable kind of food. If one feels the need of eggs occasionally, they should be taken raw. The raw egg is much more wholesome and will not decompose nearly as readily in the stomach and intestinal tract as the cooked egg. The egg is made wrong side out for use as a cooked food; the inside needs to be cooked more than the outside. So it is better to take eggs raw. They may be beaten up with a little cream or flavoring, and eaten with rice flakes or rice biscuit—something that will separate the little film of albumin and spread it out so that the digestive juices can get at it.

Q. Why is meat bad for the liver?

A. Meat is bad for the liver because the liver is an organ put into the body for the purpose of destroying poisons. If it has to destroy simply the poisons created in our own bodies, it has all the business it ought to attend to; but if the liver must destroy the

poisons of the body of the ox and of the pig and of the chicken and of the sheep and other animals, in addition to the poisons of the human being, it is overworked.

Q. Why is not pepper good to eat?

A. Pepper is not good to eat for the same reason that it does not make a good eye-wash. If used for this purpose it would have a disastrous effect, congesting the eye and making it bloodshot. If you want your stomach to be bloodshot, eat pepper. A bloodshot stomach soon becomes crippled and worn out. Pepper causes gastric catarrh, a chronic congestion with hypersecretion of mucus, which interferes with the digestive process and may end in ulceration of the stomach and cause very serious trouble.

Q. What should one do to increase the number of white cells in the blood?

A. A deficiency of white blood cells is probably due to poor nutrition and sluggish circulation of the blood. One needs to lead an outdoor life, have good nutritious food and frequent cold mitten frictions and salt rubs, and exposure to cold air and to sunlight.

Q. Would it be advisable for a person with hyperpepsia to fast for a few days to reduce the acid?

A. It is not desirable for a person suffering with hyperpepsia to fast. Hyperpepsia or hyperacid secretion is apt to result in ulceration of the stomach when fasting, especially if the fast is prolonged. Careful regulation of the diet with reference to the acid condition is much better than fasting. A patient was brought to me in a critical condition, suffering from perforation of the stomach from trying to fast for the cure of hyperacidity.

Q. Is veronal used moderately for insomnia harmful?

A. Veronal can not be used moderately for insomnia; one has to use a strong dose to get much result. Any hypnotic drug used habitually is harmful. The physiologic measures which cause sleep are also curative. Drug hypnotics are not curative; they are simply palliative, and may serve to bridge over a certain condition, but they should not be continued for any length of time. They are bound to injure the nerves and leave the nervous system in a worse condition than it was before their use.

Q. Is a dilated heart curable?

A. People often recover from that condition here. It is a very common thing for a person to come here with a heart so weak he can scarcely raise his head from the pillow, and in a few weeks to be going about the picture of health. But the heart of such a person must be taken good care of. It is very important to know just how to manage a weak heart. It has been recently discovered that dextrose, a certain kind of sugar, is good for a weak heart. Dextrose is produced by the action of saliva upon starch; the starch is first converted into maltose, and later on the maltose is converted into dextrose. Dextrose is found also in raisins and

other sweet fruits. It is the source of glycogen, which is the energy stored in the muscles. The heart is a muscle and stores up glycogen; the weak heart has not enough glycogen. By giving a person with a weak heart a quantity of dextrose, which is readily converted into glycogen, the heart may be strengthened. Malt honey is a good thing for such a person, or if that is not obtainable, extract of malt may be purchased at any drug store, and a tablespoonful of this every hour or two will be a very good thing.

Q. Which is better for a child, a mild cathartic or an enema?

A. The best thing is to give the child food of such a character that the bowel will move naturally, without any artificial stimulation. Apples are excellent for that purpose, also stewed fruits of all kinds, and whole-meal bread.

Q. What are the symptoms of hyperacidity of the stomach?

A. There is just one symptom, and that is hyperacidity. Examination of the stomach fluid after the test meal will show that there is more acid there than there should be. That is the only reliable symptom. A burning sensation and eructation of very acid liquid, and especially acid liquid coming up from the stomach in the morning before any food is taken, or the raising of acid liquid from the stomach after only water has been taken, are evidences of the excessive formation of acid in the stomach.

Q. How many hours' sleep do children require?

A. Just as many hours as they can be made to sleep. A child grows only when it is asleep. It does not grow at all while it is running around and using up its energy; but the time that it grows is when it sleeps. It is well also for sick people to remember that it is while they are sleeping that they are getting well; so as a rule the more the sick person can sleep, the better. Ten hours' sleep out of the twenty-four is not too much for the child, and is also a good thing for the average invalid.

Q. What are your objections to ice cream?

A. My objection to ice cream is that it is inconsistent. It contains protein, which requires to be digested in the stomach, and fat, which is always very slow of digestion in the stomach. If the cream were not frozen, one could take but very little of it; one's natural instincts would repel it. But when the cream is frozen the sense of taste is chilled, the gustatory nerve is paralyzed, and one's instincts are benumbed so they can not indicate that the ice cream is not good for one. Ice cream is very hard to digest; it requires a large amount of gastric juice and a very active stomach. At the same time it benumbs the stomach so that it can not secrete gastric juice, and paralyzes its activities. The result is that the cream ferments and decomposes. The next morning after eating a lot of ice cream one has a thick coat on the tongue and a bad taste in the mouth. Fruit ice is a very different thing; it contains nothing that requires digestion, but needs only to be melted, and then it will pass out

of the stomach at once and do no harm. We have here fruit gelee, which is a very good substitute for ice cream, and has no bad after-effects.

Q. Does high altitude affect a weak heart?

A. Yes, because it necessitates more activity of the lungs in order to get the proper amount of oxygen, so the heart has to work faster to get the blood through the lungs in order to get the proper amount of oxygen into the blood.

Q. What is the best treatment for migraine?

A. Get rid of the autointoxication that occasions it. Migraine is simply a paroxysm, an effort of the body to dispose of an accumulated burden of poisons. The source of these poisons is the colon. In the colon there is a large amount of material undergoing putrefaction, and the poisons that are absorbed from it into the blood at last produce a nerve storm that we call migraine, or sick headache. These headaches disappear under an antitoxic diet, a diet that will not undergo putrefaction.

Q. What is the cause of hay fever?

A. Hay fever is a condition of abnormal sensibility of the nasal mucous membrane. There is generally a diseased condition of certain structures in the nose, the removal of which makes the patient very much less susceptible to this disease; but the exciting cause of the disease is the pollen of certain plants. There are said to be fifteen or sixteen different kinds of plants the pollen of which will produce hay fever. It is possible to mitigate the disease to a very large degree by means of substances which have been extracted from the pollen of these plants; but the best remedy is to remove the susceptibility by curing the diseased condition of the nose.

CHATS WITH SANITARIUM PATIENTS AND GUESTS

ONE who mingles freely with the Sanitarium guests hears constantly expressions and comments about the Battle Creek System and the Sanitarium, and it is rare indeed that one hears anything which is not in a high degree complimentary to the system and principles and expressive of good cheer and expectation of recovery. We print below a few quotations from conversations which have reached the ears of the editor within the last few days:

"The longer we stay here the better we feel," declared REV. DR. C. A. BERGER, of Red Oak, Ia., in speaking for himself and wife during an interview a few days ago. "I think this place can not be beaten. It is greater than we ever thought it to be, and now any good thing you wish to say about the Battle Creek Sanitarium and its system we will gladly stand for." When Doctor and Mrs. Berger arrived several weeks ago, Mrs. Berger was a great sufferer. She says she is free from pain, and is entering actively into the life of the place.

PAUL MAIR, a prominent capitalist of Mt. Vernon, Ind.: "I could not be more thor-

oughly pleased with the results of the Battle Creek Sanitarium and the Battle Creek Sanitarium system. My wife had to undergo a serious operation. Now she is able to go about in a wheel chair and is gaining strength rapidly. We expect to depart for home shortly, although we very much dislike to leave this greatest of great places for regaining and maintaining health."

of benefit. I first heard of the Sanitarium through a friend who came up here from Cuba after having tried a number of treatments prescribed by as many physicians in different parts of the world. His recovery was so speedy that I decided the Battle Creek Sanitarium was the place for me. Three years of life in the tropics had made me a nervous wreck, and when I came here

tarium system. This is without a doubt the best place to cure ills I ever struck, and I have a good word to say for the Battle Creek Sanitarium any place I go at any time. The food can not be excelled anywhere in the world. The diet thoroughly agrees with me. I am a friend of this institution and I can not say enough for it."

CHARLES MESHEL, president of Chas. Meshel and Company, furriers, New York, asserted: "I came here a year ago for the first time and was cured of my ailments. I became so attached to the place that this year I have come with my wife and three children to spend the summer. Anything you wish to say about the Battle Creek Sanitarium and



A FAVORITE RESORT OF WALKING PARTIES

J. W. BOYLE, a retired merchant of Dundas, Ontario, asserted yesterday that he had gained another pound, making an average of half a pound a day since his arrival. "This food is the best I ever struck," he emphatically declared. "How much I think of the place is shown, I believe, by the fact that I am sending for a friend who is also sick, to come and spend a short time here and get better."


CHARLES A. KNOX, proprietor of the largest departmental store in Pine Bluff, Ark., who was one of the original happy family from that city introduced to the Sanitarium this summer by Mr. Charles H. Owens, says: "There is no place like the Battle Creek Sanitarium and no system like the Sanitarium system. The diet is great and more helpful to the stomach than anything I have ever found in the way of foods. The treatments are all that could be asked; and taking everything into consideration I am more than pleased with the results of my visit to the Battle Creek Sanitarium."

Rev. C. S. MASON, pastor of the First Presbyterian Church, Conway, Ark.: "When I came here a few weeks ago I was so tired that I was uncomfortable all the time. Since coming I have gained flesh and feel rejuvenated. This is surely a fine place for a rest. I was all run down from a hard year's work, and was in bed six weeks with acute indigestion before I came here. As for sleep—well, I certainly sleep all right. I think this climate is especially favorable for good sleep. The nights are cool."

W. J. BOWLEY, traveling auditor with the Cuban-American Sugar Company, New York City, says: "I have been at the Battle Creek Sanitarium for a period of three weeks, and during that time I have derived a great deal

my stomach was so bad that I almost forced my food down, for I had no appetite. Today I have a hearty appetite. The system of preparing each individual's menu for his or her particular case is excellent, and I feel that I owe equally as much to the dietitian as to the physicians."

C. W. DELVEY, capitalist, Milwaukee, Wis.: "Too much can not be said for the Battle Creek Sanitarium and the Battle Creek Sani-



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To be sure that the building-up process going on in the body equals or exceeds the breaking-down process, requires scientific feeding.

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Send Us the Names of interested friends who you know would like to have the information contained in the **BATTLE CREEK IDEA**, and we will send them free of charge a few sample copies. Simply write their names and addresses in the blank spaces below, cut out the coupon and mail to us, and we will send the papers.

NAMES

ADDRESSES

its system I'll stand for. You can not say enough. There are advantages to be derived here that can not be found in any other institution of the kind in the world. When they could cure me of my trouble I know they can cure others. Hereafter I'm a walking advertisement for the Battle Creek Sanitarium."

H. L. STEVENS, capitalist, and proprietor of one of the largest hotels in Muskogee, Okla., who is here on his second visit, likes the institution and environment so well that

he expects to spend at least a couple of months. "It just seems as though I can not help putting in a good word for the Battle Creek Sanitarium every place I go," he said recently. "Last year I was here for two months, and this year I hope to stay the same length of time. There's no place like it."

T. L. EVANS, a leading salesman for the Cadillac Motor Car Company, Detroit, is among the large number of those who feel

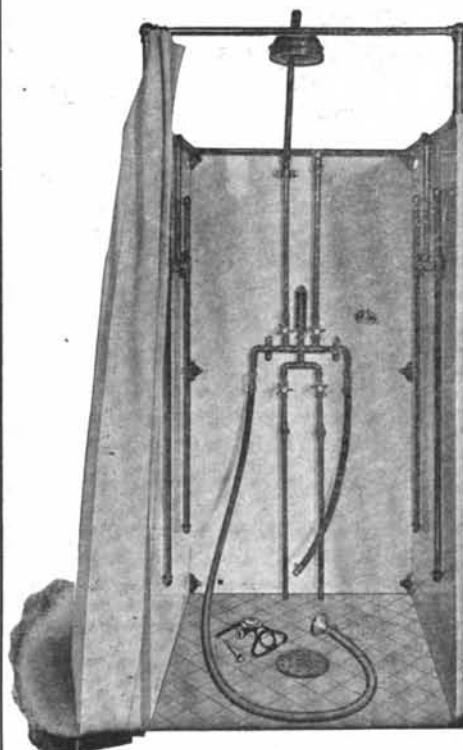
indebted to the Battle Creek Sanitarium for the return of his once good health. "Eating so many different kinds of foods during my travels in the past few years put my stomach completely out. I came here in the hopes of getting better, and I've found that I came to the right place all right. Although I have been here but a short time, my appetite is back stronger than ever and my stomach is digesting the foods as it should do. I don't know what I'll do when ' comes time to leave here."

MRS. BLANCHE H. LANGFELDER, wife of S. Langfelder, a prominent capitalist of Fort Smith, Ark.: "The fact that I was here last autumn and am here again in less than a year is the best evidence of our high esteem for the place and the benefit it brings." Mr. Langfelder spent a couple of weeks here with his wife, leaving during the past week. He was very much taken up with the institution and its system.

JAMES BRIGHT, a leading contractor of St. Louis, Mo., who with his wife has been at the Sanitarium for recuperation for the past few weeks, is greatly in favor of the system and treatments inculcated here. "A fine place for any person," is the way he describes it to outsiders. "I wish I could spend the whole year here. It's so different from any other sanitarium or health resort. Sickness is not in evidence, yet almost every person here is sick. Each person helps the other to forget his ills. It certainly is the place of all places for me."

GEORGE S. LINSKOTT, president of the Linscott State Bank, Holton, Kansas, says: "I came here to recover from the effects of a fever—coming as soon as I was able to travel. Everything I have tried here seems to have agreed with and benefited me. My health has improved daily, and I am prolonging my stay beyond all expectations. I most heartily approve of the Battle Creek Sanitarium and its system. The diet and the treatments prescribed by the corps of emi-

"The Greatest Tonic in the World"



¶ You have still to enjoy the greatest tonic in the world if you are not yet taking a cold shower—rain, needle, or spray—every morning. Nothing in all this wide world can equal it as an eye-opener, appetizer, and invigorator. It makes you all aglow with that fine feeling that life is worth living.

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¶ The Kellogg Home Douche gives you in a more convenient form practically the same advantages as the

celebrated Kellogg Douche Apparatus now in use everywhere in sanitariums, hospitals, treatment rooms, gymnasiums, etc. And the Home Douche dispenses with the attendant—you operate it yourself, and get as good results.

¶ And if you use it daily, you may steer clear of the day when you have to go to a sanitarium to get water treatment as a cure. Get it now as a preventive—in your own home.

PRICE:

The Kellogg Home Douche Apparatus, complete with attachments for Spray, Fan, Jet, and Ascending Douches	\$100.00
Duck Curtain and Curtain Rod, extra	10.00
Three Kiln-dried Hardwood Slabs with wood basin and floor drain (the wood basin is to be filled in with cement by your mason), extra	35.00
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nently qualified physicians for the particular needs of each patient, certainly assist nature in overcoming the effects of the disease and bringing the human system into a healthy, normal condition."

C. B. WATTERS, president of C. B. Watters & Company, realty dealers in the Gibbs building, San Antonio, Texas: "I am greatly in favor of the Battle Creek Sanitarium and the Battle Creek Sanitarium system. In my mind there is nothing that can equal it anywhere. I have been here several weeks now, and believe that I am in a position to judge if any person ever was. The treatments are all that could be asked. Every person is courteous and congenial—a feature that every patient and guest can not fail to notice. I came here for recuperation from a nervous attack, and while I would like to stay all the year round if I could, I am going away shortly, feeling like my old self once again. This place is certainly great, and there's no getting around it."

T. S. PEARCE, vice-president of the Colonial Trust Company, Tulsa, Okla.: "I had not been well for some months and came to the Battle Creek Sanitarium to see if I could not regain some of my lost health. I am going home shortly, feeling greatly benefited and more like myself than I have before in a long time. I have been here about six weeks, and in all that time I have not heard any profanity or coarse talk on the part of any of the attendants or employees; and when you consider the hundreds that are employed in this great institution it seems remarkable that such should be the case. There is a Christian spirit about the institution that speaks volumes for the management and all the employees. The question box is an excellent feature of the routine at the Sanitarium. I never enjoyed anything more. The answers given to hundreds of questions asked by the patients are so good and interesting that I have not words at my command to describe them. They are filled with good truths and good advice."

ARRIVALS

THE list of arrivals at the Battle Creek Sanitarium for the week ending August 20 is as follows: Mrs. G. J. A. Young, Can.; N. H. Meyer, Ala.; Russell Everett, Jr., Cincinnati; Mrs. Fred N. Ogden, La.; Chester L. Wise, Pa.; Fred Schaible, Jr., Mich.; Mrs. J. H. Charibon, Pa.; Gertrude Miller, Mich.; W. O. Payne, Ky.; S. L. J. News, Ill.; W. D. Reid, Ia.; Harry S. Klingbery, Pa.; Mr. and Mrs. R. T. Graff and Mrs. Chas. Carmea, Ohio; Anna Loring, Cleveland; Samuel Knapton, Detroit; Wm. A. Newhouse, Ind.; Mrs. Henry E. Harman, Ga.; Miss Halser, S. C.; J. W. Harrett and wife, Ill.; Viola F. Stuckey, O.; M. M. Van Pelt, Chicago; F. Y. Watson, Ill.; D. H. Kress, M. D., Washington, D. C.; R. J. Farion and wife, and Mrs. S. E. Storeh, Cincinnati; A. Marx, Okla.; Mrs. J. D. Leibrock, O.; Miss Cora and C. R. Wilkes, Mich.; M. B. Parker, Pittsburgh; Carl Waldman and family, O.; Lewis Eschelback and Mrs. Geo. Hooker, Mich.; Mrs. C. R. Buchman, Grand Rapids; Wm. Burtless, Mich.; Mrs. Virginia Rogg, Ky.; Col.

P. Miller, Ia.; Miss F. Raymond, La.; Mrs. Clarence Gennett, Ind.; Mrs. S. F. Hinman, O.; E. W. Roberts, Ind.; J. A. Downey, M. D., and wife, Ind.; Chas. B. Allen, Mo.; Mrs. Frank L. Randall, Minn.; Emily May Ely, Mich.; Miss C. A. Martin, Los Angeles; L. H. McGifford and family, Ala.; Albert Gilbert, N. Y.; J. D. Henderson and wife, and Miss Robinson, Ala.; Mrs. Joel Myers and Marie, Miss.; M. C. Sterling, N. Y.; R. A. Iles and Mrs. M. A. Wolf, Ill.; Mrs. J. H. Enurich, Indianapolis; Mrs. E. R. Richardson and Miss Frances Magbury, Tex.; Chas. A. Brownell, Cincinnati; Edgar T. Wherry, Pa.; F. Helen Raymond, W. Va.; Mrs. G. A. Gausko, Neb.; R. A. Faust, Ky.; A. D. Paton, New York City; W. A. Eidson and wife, O.; C. W. Brown, Kans.; E. C. Connor and family, Tex.; Mrs. Belle Brown, M. D., and W. E. Abraham and wife, O.; Mrs. Isabelle N. Skinner, Ind.; Chas. S. Dening, Korea; Mrs. H. Walker, O.; Mrs. Asa Long, W. Va.; Mrs. L. A. Kann, Mich.; Lucy J. Koehler, Wis.; D. B. Smith and wife, W. Va.; T. T. Clark, Tex.; Mr. and Mrs. E. Simpson, Miss.; A. W. Reed, Ind.; Mrs. H. T. Clapperton and daughter, N. Mex.; A. K. Brown and wife, and Mrs. F. F. Fowler, Chicago; W. A. Northrop, Ill.; H. M. Dilla, Ind.; M. P. Swank and wife, Ill.; C. A. Stouffer, Pa.; H. A. Hughes and wife, Ala.; Rev. L. C. Randolph and Victor S. Randolph, Wis.; C. F. Brown and J. Bowman, Ill.; Leon H. Ballard, N. Y.; Miss M. L. Dye, O.; Garnett Stephan, W. Va.; Mrs. L. H. Beckman, City; J. B. Farthing and wife, Misses Carrie Farthing and Anice Garrett, Tex.; C. E. Bennett, M. D., and wife, Fla.; J. M. Wintersmith, Okla.; H. N. Beakley, Tex.; L. C. Jones, N. D.; R. D. McAfar and wife, Mrs. D. H. Tonib, Pa.; R. Kanimer, Ill.; M. M. Neil and wife, Tenn.; R. S. Toombs, M. D., Tenn.; Edw. Pfister, La.; F. R. Walten, Minn.; Geo. W. Jones, Ill.; W. W. Denham and C. A. Alexander, Miss.; Mrs. McCain, Mich.; Mrs. E. J. Martindale, O.; Mrs. Robt. Brodie and Miss Mary G. Brodie, Ky.; Thos. Allen, N. Zealand; M. Schwartz, Detroit; R. P. Clement, Mich.; Lillian A. Berlin, Chicago; Mrs. M. Oleymour, Ark.; Sam Weis, Tex.; Mrs. Jos. B. Roberts, N. J.; R. T. Smith, Detroit; Mrs. Jas. Palmer, Tenn.; T. D. Tuttle, Ill.; Della M. Johnson, Cincinnati; Mr. and Mrs. L. F. Parker, Okla.; Mr. and Mrs. J. E. Henry, New York City; Mr. and Mrs. Edw. C. Quinan, Ga.; J. E. Whalen, Mich.; Dr. G. P. Hall and wife, and Graham Hall, Tex.; M. A. Kelsynski, Chicago; Chas. Anderson, Ill.; J. F. Hoke, Sam'l and May Schlosser, Ind.; Mrs. T. C. McGaughey, Miss.; Mrs. W. C. Hughes, Kan.; G. Y. McDowell and wife, Ill.; C. B. Harner, O.; Ben Wilk, Chicago; H. L. Hillpiren, La.; M. L. Stern and wife, Ill.; Geo. W. Lyle, Tenn.; O. P. Norris, Ohio; Mrs. H. B. Wintersmith and Margaret, La.; Mrs. Geo. L. Newson and A. E. Galien, Ohio; R. S. Bartlett, Chicago; W. E. Dittenhaven, wife and daughter, Ohio; Mrs. C. H. Estes, Mich.; Martha Shimler, Cincinnati; A. J. Hiestand, O.; J. M. Grimm and wife, Ia.; Dan Karle, Detroit; A. A. Nisely and wife, Denver; J. E. Britt, S. C.; Mrs. E. S. Dond and R. P. Dond, Ia.; J. C. Armstrong, Pa.; A. C. Brant, O.; Dr. G. P. Hall, wife and son, Tex.; J. W. Wallace, New York City.

News and Personals

Mr. and Mrs. C. Waldman, Youngstown, Ohio, are guests. Mr. Waldman is proprietor of a large confectionery.

Prof. J. J. McElree, of the University of Michigan, whose home is in New Wilmington, Pa., is back again for recuperation and treatment.

Miss Cora H. Wilkes, sister of Charles R. Wilkes, a prominent attorney of Allegan, Mich., is among our many lady guests for a few weeks' visit.

The children stopping at the Sanitarium were treated to a motor ride about the city on two days of last week. The youngsters very greatly enjoyed this fine outing.

The name of Dr. J. A. Downey, of Logansport, Ind., last week became attached to the list of practicing physicians at the institution. Doctor Downey has been here before.

W. A. Newhouse, a sign and design artist of Topeka, Ind., came to the Sanitarium through recommendations of various friends, and especially Dr. I. J. Vaughn, of Topeka.

Another prominent patient for a few weeks' stay is Prof. Edgar T. Wherry, of Lehigh University at South Bethlehem, Pa. Professor Wherry is also a government geologist.

Albert Gilbert and wife, of Trenton Place, Jamestown, N. Y., who have been here before, are listed among the guests this week. Mr. Gilbert is largely interested in manufacturing.

Miss Fannie Reymond, secretary and treasurer of the S. J. Reymond Company, Baton Rouge, La., arrived in Battle Creek a few days ago to be a guest at the Sanitarium for a few weeks.

S. S. McClure, the eminent New York publisher, owner of *McClure's Magazine*, and a staunch friend of the institution, spent a couple of days the early part of this week with his wife at the Sanitarium.

With us again this week for a second visit we have C. W. Brown, a prominent retired banker of Wichita, Kansas. Another retired gentleman patient is W. A. Eidson, a former merchant of Eaton, Ohio.

Although Mrs. Ara Long, of Pine Rose, W. Va., had first thought of going elsewhere for treatment, the Battle Creek Sanitarium was recommended so highly to her by friends that she changed her mind and is now among the Sanitarium patients.

Mrs. Winona Randall, wife of Frank L. Randall, general superintendent of the Minnesota State reformatory, is at the Sanitarium for recuperation. Mrs. Randall is greatly pleased with her improvement since she came a few days ago.

Our list of prominent bankers at the institution is daily increasing. Among the new arrivals are Carl P. Miller, of Randall, Ia.; W. S. Field, Albion, N. Y., whose wife is also here; and George S. Linscott, president of the Linscott State Bank, Holton, Kansas.

A very interesting visitor at the Sanitarium during the past week was Mrs. Sarah F. Hinman, of Oberlin, Ohio. Mrs. Hinman is eighty years of age and a returned missionary from West Coast Africa, having spent from 1860 to 1865 in that country.

Among our prominent guests this week is A. D. Paton, in the sugar business at Fajardo, Porto Rico. Mr. Paton is greatly pleased with the Sanitarium, and although he has been here but a very short time, asserts that he is already deriving benefit from the treatments.

Large numbers of the Sanitarium guests and patients are taking advantage of the beautiful days we are having to visit the surrounding lake resorts. There are a large number of these within easy reach of the Sanitarium. None are more attractive than Gogua Lake, that lies just outside the city limits and is reached by the city car lines.

On next Sabbath afternoon at four o'clock Dr. J. H. Kellogg will, in response to several requests, speak at a lawn service near the parlor on "The Living Temple, or The Miracle of Life." We shall anticipate a large attendance, and all will be made welcome. Should the weather be unfavorable for out-of-door meeting the lecture will be given in the parlor. A short service of song will precede the address.

Even old Kentucky attractions can not hold Kentuckians from coming to the Battle Creek Sanitarium. But not only is this so of Kentucky, but a great many other good states. Among the new arrivals during the week we notice the names of the following farmers: Henry M. Price and wife, La Grange, Ind.; R. A. Faust, Benton, Ky.; Lewis Eschelbach, Chelsea, Mich.; W. O. Payne, Warsaw, Ky.

Much interest is taken in the group-pictures that are being taken by the Sanitarium photographer of people from the various States. It is difficult to get all of the representatives together at one time, and second groups are being taken of several States. Ohio, Pennsylvania and Illinois have had their second groups, and Indiana has been taken for the first time. We shall give some of these groups next week, they being crowded out of this number.

As usual, the South is very largely represented among the guests of the Sanitarium; and each season witnesses an increase in the number of people who come from that region to enjoy the advantages of this climate and to obtain the benefits of Sanitarium treatments and diet. One gentleman from Texas declares that he came all the way to obtain something to eat. Of course they have things to eat in Texas, but it takes the Sanitarium cooks and dietitians to select and prepare the right kind and quality.

Fifty thousand copies of last week's BATTLE CREEK IDEA were sent out. Many of the patients of the Sanitarium upon returning home become permanent subscribers and regular readers because it serves to keep them in touch with the place and people who have helped them back to health again, and is a constant reminder of the right way. Not only that, but each number contains information that is of the greatest value to those who prize good health. Subscriptions are being received at the desk.

Canada and the great territory to the north and northwest are sending many people to the Sanitarium as the knowledge of the institution and the work being done here is handed along from one patron to other invalids. Winnipeg, Moosejaw, Edmonton, and even the Pacific provinces are represented in our family. We have also with us a gentleman who has journeyed to us from far-away Auckland, New Zealand, Mr. Thomas Allen, an old resident and highly respected citizen and business man of that celebrated beauty-spot.

Among other guests this week for recuperation are A. W. Reid and wife, of Richmond, Ind.; Mr. and Mrs. Henry Kernaghan, of Jackson, Miss., Mr. Kernaghan being a merchant of that city; Mrs. Florence E. Young, wife of G. J. A. Young, druggist, Winnipeg, Man.; Mrs. Elizabeth C. Johnston, wife of R. A. Johnston, of the Central Bank, Memphis, Tenn.; Mrs. S. A. Ganska, wife of a prominent hotel-keeper of Hartington, N. B.; and Mrs. Ruby Gennett, whose husband is affiliated with the Starr Piano Company of Richmond, Ind.

The commencement exercises of the Normal School of Physical Education were held on Thursday evening, the 24th instant, in the Sanitarium chapel. The leading address was by Prof. E. G. Lancaster, president of Olivet College, who took for his theme, "The Physical Basis of Efficiency and Vitality." The diplomas were presented by Dr. J. H. Kellogg, the president of the faculty. There were fourteen graduates, eleven of whom finished the two-years' course, and three the summer course. Next week we shall be able to give further particulars concerning the program, and the school itself.

"Esophagoscope" is one of the more recent scientific words just from the mint. The esophagus is taken for a base in "building up" this term, and the word "scope" is added to indicate a means by which the esophagus may be inspected. It includes a minute electric light and a mirror, which, being let down into the food-pipe, permits the operator to see clearly any obstacle or diseased condition existing there. This enables the operator to readily remove any of the foreign obstructions that frequently lodge in the throat and cause serious trouble till they are taken away.

The concluding exhibition for this season of the Normal School of Physical Education, held in the gymnasium of the Sanitarium on Tuesday night last, was witnessed by several

hundred people from all parts of the country. It was not only in point of attendance a success, but also from any other point of view. The program proved very interesting. Dr. Wm. W. Hastings, dean of the school, officiated as chairman. Among the exercises were club drills, apparatus exercises, such as horse, and parallel bars, solo club swinging, juggling, foil drills and bouts, volleyball, and tumbling.

The clinical and analytical laboratories of the Battle Creek Sanitarium are perhaps the most complete establishments of the sort in the world, and some idea of the amount of work done there may be had from the following figures taken from the reports for July: Total number of examinations made was 2,747. Of this number 799 were blood examinations for count and hemoglobin. There were 250 examinations of the gastric fluids; 262 bacteriological examinations, and 261 chemical and microscopic examinations of the feces; 937 examinations of urine; 397 bacteriological researches. These figures represent only a portion of the work done by the large force of experts who give their entire time to this branch of the medical work of the institution.

"For thy sake, Tobacco, I
Would do anything but die."

Some weeks ago a well-dressed, hollow-cheeked youth of nineteen years occupied a chair in the main parlor of the Sanitarium while Doctor Kellogg discoursed on the tobacco habit and its dangers. He heard the foregoing lines quoted from Charles Lamb, and listened closely to the advice quoted from Maxim. He almost reluctantly but interestedly heard of two young brothers being killed by the habit, and then he reflected: "Can it be that tobacco can do one so much harm? Yes! It must be so." That night this same young man, who in a few years had smoked thousands and thousands of foul, death-dealing cigarettes, pledged to his health that he would never smoke again. Several weeks ago that pledge was made, and to-day it stands good, for he has not touched tobacco since. There are others who need reforming.

The two outdoor swimming pools are well patronized. The ladies are not neglecting their opportunities, and the children also are many of them becoming expert swimmers. Swimming is one of the most beautiful forms of exercise and by the aid of an expert teacher is easily learned. The man or woman who can not swim would, if accidentally thrown into water, give up every bit of knowledge taken from books for but a few minutes of knowing how to travel through the water. At this season, every one, man, woman, or child, might well be taking a few lessons. There is no knowing how valuable the knowledge would prove, for even the sorriest land-lubber goes at times on the water, where his fear of it and ignorance of it unite to make him its easy victim. We would advise that all those among the guests at the Sanitarium who can, take advantage of the swimming instructions and learn to swim.

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Bodily Exercise as a Therapeutic Measure

Employed at the Battle Creek Sanitarium in Various Forms and
for Many Reasons—The Swedish System,
Both Active and Passive

It is quite well understood that muscular exercise is a natural and necessary function of the human body. The relation which exercise sustains to health is many-sided and primary in the physical economy. In the first place, the life and efficiency of the muscular system depend upon a rational and regular use of the muscles. Then,

Food Values

In a Recent Lecture, Doctor Kellogg Speaks of the Comparative
Value of Ordinary Foodstuffs

We do not always stop to consider that we are made of the food we eat. What we eat to-day is living, thinking, moving tissue to-morrow. This being true, it is of great importance that we should eat the right kind of foods. There is an old German proverb that says: "As a man eateth, so is he." There is a still older one to the effect that, "As a man thinketh in his heart, so is he." Putting these two proverbs together, we produce another that teaches that, "As a man eateth, so he thinketh."

I met a man very recently who said that he had not been able to



NORMAL SCHOOL OF PHYSICAL EDUCATION

the tone of the nervous system is maintained only as the muscles are kept in good form and vigor. The circulation of the blood is promoted by muscular exercise, and the processes of elimination are encouraged by the same means. Muscular inactivity tends to the demoralization of every function of the body, and is the cause of weakness and inefficiency in the performance of the vital functions in the same proportions as the various organs are affected.

There is a Tendency

in our day more and more to neglect physical activity and exertion. A few generations ago our forefathers were engaged in the heroic work of subduing the wilds of our virgin country, making homes and

(Continued on page two)

think straight or to do business for ten years. An investigation of his case showed that

The Cause of His Inability

to think and to do business was wrong eating. Food poisoning, from eating improper and imperfect foods, is the thing that the American people and all civilized people are suffering more from than from any other cause. I said to this gentleman, "You have been drunk for ten years; you have been intoxicated all the time." He replied, "It is perfectly true; but I can not understand it; I have been a temperate man; I have never smoked; how is it my food should have made me drunk? Within half an hour after eating my dinner I feel stupid, as though I were drunk, and can not do a

thing." It was all due to the poisons accumulated in his system while he was continually supplying his system with foods it could not appropriate. This went on for many years until at last the liver and kidneys became overworked, the poisons were not thrown out, and being allowed to accumulate in the brain and other tissues, paralyzed the body in its normal action.

So the question of supplying the right kind of foods in suitable quantities is one of the most important considerations in our bodily economy. Let us note the

Comparative Value

of some of the most common foods. The foods highest in nutritive value are the cereals and legumes, such as oat-meal, rye-meal, corn-meal, wheat, barley, rice, beans, peas, etc. The vegetables, such as potatoes, parsnips, cabbage, turnips, are low in nutritive value, though valuable for other considerations.

As to meats, they have scarcely one-third of the value as foods that cereals have. For example, lean beef has a value represented by twenty-eight; and wheat flour has a value of eighty-five; and corn-meal of eighty-six. Chemical analysis shows that a pound of corn has three times as much food in it as a pound of beef. One reason for that is that the beef is three-fourths water. You will all see that it is folly to feed 72,000,000,000 pounds of corn to pigs to produce 18,000,000,000 pounds of pig; and a pound of pig is worth only four-fifths as much as a pound of corn-meal for food. And when it comes to beefsteak, the situation is even worse yet, because beef contains less fats.

As to Digestibility

Rice, with three times the food value of a pound of beef, digests in one hour. It takes prime beef three hours to digest, lean beef four hours, salt beef four and a quarter hours, pork five and a quarter hours; so that the difference in the time and work of digestion is also very greatly in favor of the cereal foods. Some things that people usually suppose are easy of digestion are really very difficult of digestion, as oysters, for instance, which have very little nutrimental value and require three and one-half hours for digestion. Milk has twice the nutritive value of oysters, and yet they cost four times as much perhaps as the same amount of milk, or for the same value, eight times as much as milk costs.

Vegetables are for the most part made up of water, the potato, for instance, being seven-tenths water. Its composition is such that it has about the same nutritive value as veal or fish. The nutritive value of vegetables and fruits is approximately the same on account of their both being so largely composed of water. Dried fruits and vegetables are of considerable value as foods, especially the date, raisins, prunes, figs, and the dried potato. The latter is used extensively in some parts of the Andes region in South America. It is difficult to dry the potato until it has been frozen, but after that it may be dried readily, and is thus preserved and forms a staple article of diet in its original home. The potato stands at the head of the list of vegetables, and the sweet potato at the very top of the list.

We Eat Fruits and Vegetables

chiefly because of the alkaline salts which they contain. For example, the potato contains forty times as much of alkaline salts as rice contains. In most cases these salts are very essential food elements, because the resisting power of the body depends upon the alkalinity of the blood. The higher this alkalinity is, the greater is the power of the body to resist disease.

People who find themselves easily subject to colds, and liable to contract various diseases, contagious and otherwise, may know that it is on account of their low resistance. Their vitality has been lowered by wrong conditions induced through unwise habits of eating. The eating of meat is a very active cause of lowered vitality. Frequently, an inactive condition of the bowels attends the liberal use of flesh foods. And those two things—the eating of meat and inactivity of the bowels—form a combination that is about as sure to kill a man as anything could be. Portions of the meat are left undigested and allowed to remain in the body, decaying, decomposing, sending off great quantities of poisonous germs that are absorbed into the blood, thus destroying its vitality, lowering the power of resistance, and inviting diseases of all kinds to invade the body. One might just about as well take arsenic in increasing doses, or do some other violence to his body.

This is the reason why fresh vegetables are so essential a part of our dietary. The reason why beef and potatoes are so commonly eaten together is that the potato furnishes the alkaline salts which to some degree antidote the poisonous effects of the beefsteak. The use of uncooked vegetables is very important. I refer to edible vegetables like lettuce, cabbage, cucumbers, not pickled cucumbers, but those fresh from the garden; and when we can not get the fresh vegetables, we should eat more of the cooked vegetables, for the salts which they contain.

Some one said to me the other day, "If we are not to eat meat,

"What Shall We Eat?"

So I am showing you now that there are other things to eat besides meat. Look at the splendid array of foods spread out before us! Look at the cereals and the legumes, hardly one of which carries less than 1,600 food units to the pound. Here are the long lists of vegetables containing food elements that are very essential and at the same time fairly high in nutritive value; there are the fruits so luscious and full of life-giving energy taken from the sun itself; there are nuts containing elements very similar to those contained in flesh, but in greater quantity and better quality. Surely we are well provided for.

Beefsteak stands at the head of all the meat foods, having a food value of 1,100 calories to the pound, and all the meats run in below that, some coming down as low as 400. But looking at the nuts, we see that almonds have a value of over 3,000 calories to the pound, almond butter showing a record of 3,384 calories. Almond butter has three times the food value of beefsteak. People talk about non-flesh food being expensive, but with almonds even at forty cents

per pound it is much cheaper than steaks. And there is another difference—one can keep right on eating almonds and live and keep well with no poisons undermining his vitality and lowering his resistance.

BODILY EXERCISE

(Continued from page one)

endeavoring by hard work to earn a living from the soil, and they were a vigorous and happy people, free from most of the ills that beset society in these days. The forests have disappeared and most people seek employments that call for the least possible outlay of muscular exertion. Young men choose the city and look for a place in an office or store, or to engage in professional or commercial pursuits which call for desk work and close confinement indoors, with but little absolute call for physical effort. The result is seen in many men and women who have, through their failure to obtain the required amount of physical exercise, entailed upon themselves debility and disease in a hundred different forms. Indigestion, neurasthenia, heart troubles, kidney and liver troubles, and many other disabilities are the direct fruit of this neglect, brought about by sedentary lives and employment.

To Counteract These Evils

it is necessary to go to the root of them and supply to the debilitated muscles the development and nourishment they have been deprived of. This is done at the Battle Creek Sanitarium through means of systematic exercise, administered under the care and direction of physicians.

One system employed is called "Swedish movements" because it was in Sweden that exercise for health was first systematized by an army officer who obtained his first hints from an ancient Chinese work on that subject. Lieutenant Ling interested the government in his work, and it was generally introduced into the army; and the Swedes have since then maintained the leading place in the perfecting of the system of therapeutic exercise. The managers of the Sanitarium early perceived the great advantages of such a system in the treatment of their patients, and the superintendent visited Stockholm for the purpose of studying the methods employed, and under his direction by the aid of experts from that country a most complete outfit for the administration of manual and mechanical Swedish movements has been installed and augmented by several devices invented at the Sanitarium.

The system is divided into three sections: The manual section, in which the exercises are administered by an operator who manipulates the muscles and controls the movements for the patient; the mechanical section, in which mechanical devices do the work; and voluntary exercises, in which the patient performs the movements voluntarily under the direction of an attendant.

The illustrations given in this paper will serve best to show how the work is carried on. Books and pamphlets are published giving the various movements in graduated or-

der and enabling one to take the voluntary movements at his home. Of course the voluntary movements are generally employed in the cases where the patient is able to take them. Those patients who are more feeble are assisted by the operator; and the machines are simply devices by which certain forms of exercises can be best administered by the aid of mechanical means.

This department of the Battle Creek Sanitarium is sufficiently extensive to form a complete institution by itself, and the amount of good that is being accomplished can not be even estimated, but among the many effectual means employed here for relieving the sick it is certainly doing its part, which is equivalent to placing the system of Swedish movements in a very important place among therapeutic measures.

COMMENCEMENT EXERCISES OF THE NORMAL SCHOOL OF PHYSICAL EDUCATION

WITH the ceremony usual on such an event the commencement exercises of the Normal School of Physical Education were held in the Sanitarium chapel on Thursday evening, August 24. The principal features of the evening's program were an excellent address on "The Physical Basis of Vitality and Efficiency," by Dr. E. G. Lancaster, president of Olivet College, and the presentation of diplomas to the graduates by Doctor Kellogg. Dr. J. H. Kellogg, president of the school, presided over the following excellent program:

Overture, "La Sirene"—Orchestra.

Invocation.

Violin solo, "Meditation"—Miss Olive Farquharson.

Address—Dr. E. G. Lancaster.

Selection, "Il Trovatore"—Orchestra.

Presentation of diplomas to fifteen graduates, by Dr. J. H. Kellogg.

Benediction.

Those receiving diplomas for the two-year course were: Mabel P. Bacon, Bridgeton, N. J.; Leola M. Westerby, Clyde, Mich.; Ada A. Hiller, Honesdale, Pa.; Anna M. Balle, Maribo, Denmark; Rex H. White, Meridan, Texas; Wm. R. Chynoweth, Painesdale, Mich.; Guy S. Lowman, Manhattan, Kansas; Justin G. Wade, Pittsburg, Pa.; George M. Caskey, New York City; Albert G. Wegener, Duluth, Minn.; Edith S. Moodie, Delaware, Ohio; Frank E. Miller, Steubenville, Ohio. Summer school course: Wilfred E. Cann, Elizabeth, N. J.; Anton Schatzel, Sanitarium; Tell Berggren, M. D., San Diego, Cal.

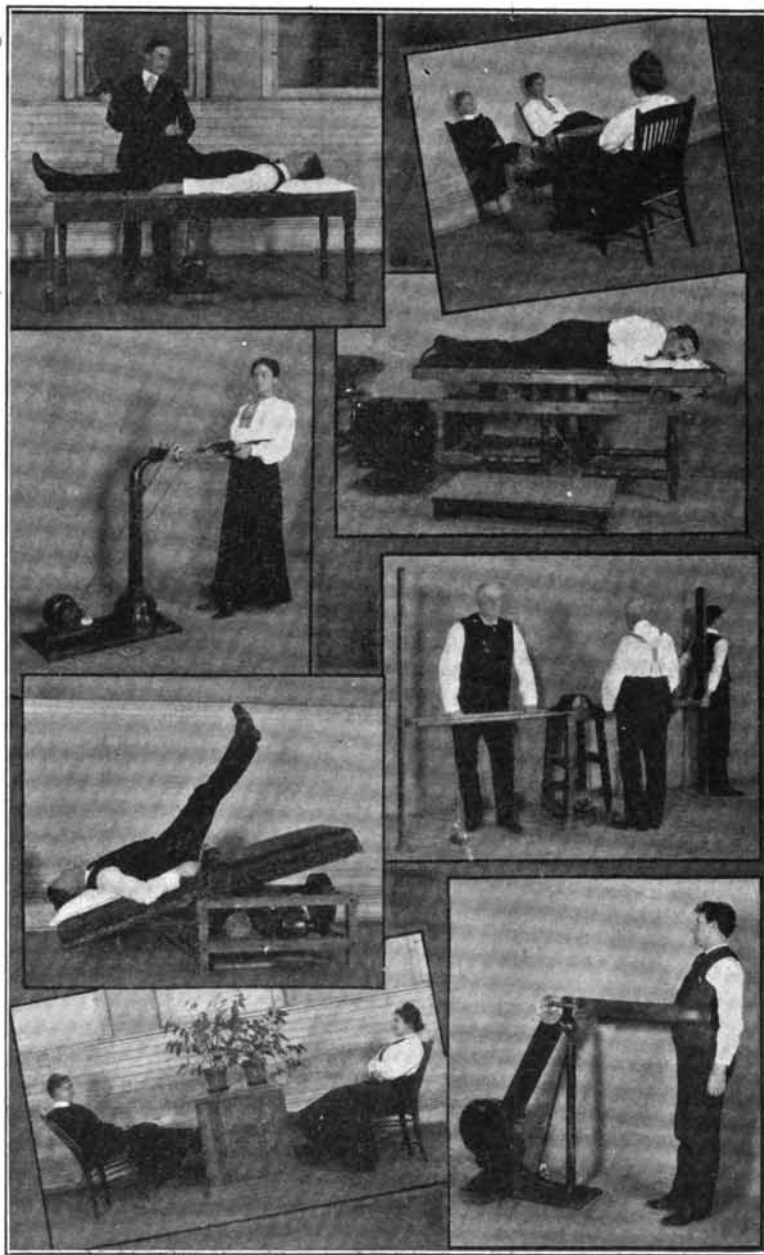
The chapel was tastefully decorated with flowers and ferns, and a large audience was in attendance.

The Chairman

In introducing the speaker of the evening, Doctor Kellogg referred to the action of the managers of the World's Fair at St. Louis in setting apart one day of their valuable program as "The Battle Creek Sanitarium Day." "This was done," he said, "in recognition of the educational work that the institution was conducting and the influence it

was at that time exerting upon the public mind, and of the fact that the principles here upheld were of vital importance to the people. Not that the Battle Creek Sanitarium claims to have originated the truths it inculcates. There are very few things in the world of modern origin that are worth while. Many old things are being rediscovered and brought to light that have lain buried by ig-

vinced of the utility of such a department in our work. And a few years ago this school was organized for the purpose of rounding out the work of the Sanitarium and making its educational work complete. We already had a training school for nurses, a school of domestic science, and now we have in operation this School of Physical Education. And we are very glad that we can present



MECHANOTHERAPY, OR MECHANICAL SWEDISH MOVEMENTS

norance for ages, but the most of things that are of any good are very old. The principles upon which our work is founded run away back to the beginning of things, and that is why they are so valuable, because they lie at the very foundation of human life and happiness.

"We have long seen the need of physical education for the people, and have been con-

vinced of the utility of such a department in our work. And a few years ago this school was organized for the purpose of rounding out the work of the Sanitarium and making its educational work complete. We already had a training school for nurses, a school of domestic science, and now we have in operation this School of Physical Education. And we are very glad that we can present

Dr. E. G. Lancaster

Doctor Lancaster said in part that he was deeply interested in the School of Physical

Education; that he was thoroughly in sympathy with the "Battle Creek Idea" and the work that is being done at the Sanitarium for the world at large. He should speak of the value of physical education, of the methods

Greeks held that the most beautiful soul should be found in the most beautiful body. May we not hope that this school is the beginning of a movement that shall combine physical and spiritual culture?

to their store of useful information. For such purposes they find the Sanitarium particularly adapted.

S. S. McCURE, of New York, owner of *McClure's Magazine*: "I spend a great deal of my time at the Battle Creek Sanitarium. I am not sick, but I find that this is the place for me to obtain a rest when I need one. Not only the pleasures derived from quietude and comfort, but the foods and exercises afforded assist in one's recuperation after a nerve strain. I think the Sanitarium in many ways is the greatest institution of its kind."

J. M. GRIMM, of the law firm of Grimm, Trewin & Randall, Cedar Rapids, Iowa: "The fact that I have been coming to the Battle Creek Sanitarium with my family at intervals for twelve years is the best evidence of my belief in the institution and its methods. The Sanitarium has practically revolutionized the 'world's breakfast,' and it is rapidly modifying the daily diet and habits of the American people. The cures effected here are important and remarkable; but of no less importance to humanity are the influences for health and happiness exerted on those who attend the institution, and through them upon thousands of friends and relatives everywhere. In giving the 'twentieth century evangel' of plain, simple living, pure food, and fresh air, the Sanitarium is doing a great service to this generation as well as to the ones to come."

L. J. ASHBY, secretary of the C. J. Lincoln Company, wholesale druggists, Little Rock, Ark.: "I came to the Sanitarium three years ago, almost a nervous wreck from overwork and close confinement, and it certainly worked wonders for me. After spending six weeks here, I returned home



SOME OF OUR KANSAS GUESTS

of physical development, the co-ordination of physical development, and of the spiritual side of physical education.

There is one great law underlying all life, and that is the law of the survival of the fittest. The human race is as truly under that law as is the animal kingdom. Mankind has a hand-to-hand struggle with the conditions of life and with nature. We have but to look around us to witness the strenuous struggle that is going on in the business and in the industrial worlds, and the people who survive must be fit.

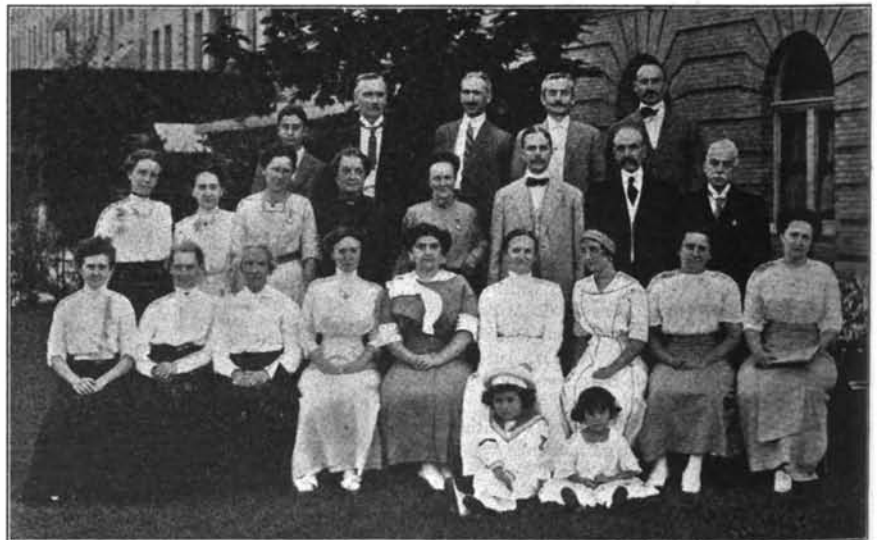
The qualities which are necessary for survival are: good digestion; good circulation—a good sound heart; good lungs, for the blood must be oxidized; good muscles; and a strong will. These conditions are absolutely essential to the man who is to win out in these days. The years soon to come will demand men who can endure. There is a marked degeneration of the race in progress, and the question where these men are to come from is a serious one.

Nature is still the best of teachers; and nature has long ago laid down certain principles in harmony with which men must live if they would attain the best that is possible. The time to begin is with the child, who should be accorded the liberty to work out its natural instincts of playful activity without the attempt to turn those activities into the service of work and drudgery. The speaker depicted very forcibly the essential difference between a boy's bringing wood into the kitchen or coal from the cellar, and the strenuous work that he delights to do upon the ball field.

As to the spiritual side of physical development, the speaker was fully impressed with the thought that physical culture should be made a spiritual exercise. The ancient

OBSERVATIONS BY SANITARIUM GUESTS

WE are pleased to pass along to our readers some of the remarks made by patrons of the Sanitarium during the past week. They are just portions of such conversations as may be overheard at almost any time. As intimated in the following chats, those who



NEW YORKERS AT THE SANITARIUM

are accustomed to take seasons of rest from business and work prefer to spend such vacations where they can obtain the very most benefit in the way of rest and recuperation, while at the same time they are able to add

and have been at work ever since. It is unfortunate that more people do not come here early in life, for it teaches how to live and keep in health. If a person lives up to the regulations and principles set forth here,

there is no occasion for his being sick. I would dearly love to spend my vacation here every year. It is simply great!"

DONATUS KARLE, president of the D. Karle Company, plumbing and sheet metal works, Detroit, Mich.: "This is my fifth visit in five years, and if I had known of the good to be derived from the Battle Creek Sanitarium and the Battle Creek Sanitarium system previous to that time, I certainly would have spent a great many more vacations here. I come every year to recuperate after a year's work, and knowing the results and benefits to me, I can not say enough in praise of the Battle Creek Sanitarium and the Battle Creek Sanitarium system."

J. G. PADGETT, attorney, Watterboro, S. C.: "I have been here six weeks and have been greatly benefited. Too much can not be said for this institution and its system. The diet is peculiarly fitted for all persons with stomach and nervous disorders. Both the electrical and the hydropathic treatments are radically different from the usual medicinal doses sent into one's stomach. One scarcely realizes the lasting good of these natural remedies until one has been here at least a month. The entire surroundings are all that could be desired, and as a place for rest it is perfectly ideal. Having come to the Sanitarium to recuperate from an operation for appendicitis, I feel that my visit was not in vain, and I expect to make an annual visit hereafter."

DR. C. W. O'DONNELL, Andover, N. Y.: "I am here for the third time and certainly feel greatly benefited by the treatments given and the low-protein diet, which I believe to be the best for all people."

M. BLUESTEIN, retired merchant of Shreveport, La.: "For the past ten years I have been coming to the Battle Creek Sanitarium for two months each year. That in itself goes to show what I think of the institution and its system. It is unnecessary to state that I have been benefited each time I have come. It surely stands to reason that I wouldn't come again if I had not derived a great deal of benefit. I hope to come back every year for the rest of my life. It is my candid opinion that there is no place quite so good as the Battle Creek Sanitarium."

LOUIS DOERING, president of the Doering Auto Chair Manufacturing Company, Cleveland, Ohio: "During my twelve weeks at the Sanitarium I have frequently been asked as to what brought me here and whether I had been benefited. My answer is always brief—ignorance brought me to the point where it was necessary for me to come here—which answers the first question. My answer in full is that I have been more than benefited and have been converted into a real 'Sanitarium crank.' Had I known years ago that which I have been taught in so short a time, I would not have been compelled to suffer as long as I did, and sacrifice my business on account of inability to attend to it. I came just in time to avoid entire collapse and have been made an optimist instead of a pessimist. All is well that ends well, and I feel that I can not say enough for this institution."

J. E. BRITT, cashier of the Bank of McCormick, S. C.: "I have been coming to the Sanitarium for the three past summers to spend my annual vacation, as I find that I get more real benefit out of my vacations by spending them here than any other place I have ever tried or know of."

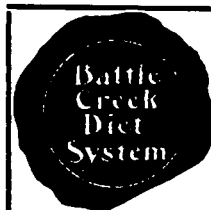
CLARENCE JULIAN, Frankfort, Ky., owner of one of the largest tobacco plantations in his State, who has been at the Sanitarium here for the past five weeks, and who will return home this week, says: "During the five weeks of my stay here I have noticed a remarkable difference in myself day by day. The pains and disorders commenced to disappear, and the first thing I knew—in fact, before I could quite realize the fact—I was cured. This is a most wonderful institution, with a system equal in value. I think so much of the place that when I go home I'm going to try and induce my brother to come here, and I hope to come again as soon as time permits."

W. B. BROOKS, Seattle, Wash., of Seattle's largest and oldest realty firm, Crawford & Connor: "This is certainly one grand institution with a wonderful system. Too much can not be said for the Battle Creek Sanitarium as a health institution. My case has been rather an unusual one, but despite that fact I have derived a great deal of benefit from the treatments here and hope to be able to come again some time."

JAMES W. HAYES, a farmer on a large scale near Kansas, Ill.: "My family and I are leaving to-day for home, after a short stay at the Sanitarium. We can not say enough for the place. It's simply great. I've been to a great number of places, but this is the most curative that I've seen yet. We will likely come again."

THOMAS J. SMITH, capitalist, Canton,

Ohio, who with his wife spent a couple of days at the Sanitarium during the past week, but was unexpectedly called home, said: "My wife and I are very disappointed at being called home. We had hoped to make a stay here and get well. It is surely a wonderful place. It's the least like a hospital, though, that I have ever seen. Usually at a sanitarium you see pain and sickness written across the patient's forehead—not so here. Every person seems optimistic, hopeful and happy. And the more you keep the Battle Creek Sanitarium from looking like a hospital to each of its guests, the longer success will reign. Enough can not be said for the diet."



PROPER BODY BALANCE

To be sure that the building-up process going on in the body equals or exceeds the breaking-down process, requires scientific feeding.

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Send Us the Names

of interested friends who you know would like to have the information contained in the **BATTLE CREEK IDEA**, and we will send them free of charge a few sample copies. Simply write their names and addresses in the blank spaces below, cut out the coupon and mail to us, and we will send the papers.

NAMES

ADDRESSES

CHARLES POWELL, general counsel for the Continental and Commercial National Bank, the largest institution of its kind in Chicago, and of the noted Chicago law firm of Mayer, Meyer, Austrian, Platt & Powell, who spent a few days last week with his wife, who has been a patient here five weeks, asserted: "I have heard and known of a great number of systems and different diets, but the Battle Creek Sanitarium system of treatment and diet are far superior to any that I have ever

come across. My wife has received great benefits from it, and I, therefore, can say nothing but good for this institution."

J. P. ALEXANDER, attorney, Meridan, Miss.: "To come more than once means that I think something out of the ordinary of this Battle Creek Sanitarium. Too much is not enough to be said in its favor. It is a great place, with equally as great a system. I have been here before, and therefore know what I'm talking about."

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 topics.

Q. Have rice biscuit and toasted bread a tendency to cause inactivity of the bowels?

A. They probably do have to some extent, but that tendency can be entirely counteracted by the use of other foods of sufficient bulk, such as lettuce, for example.

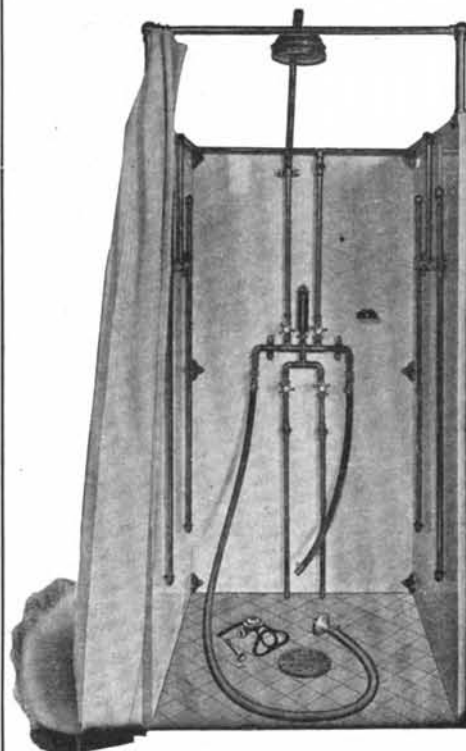
Q. What is the cure for Bright's disease?

A. Bright's disease is one of the things that must be cured before you get it. The cure of Bright's disease is like the cure of a fire. You may put the fire out, but the results remain; part of the house has been destroyed. This disease destroys the kidneys, and every day it exists a little more tissue is destroyed; it is like a fire eating into a house and consuming and destroying it little by little. The disease may be arrested, just as a fire may be put out; but we can not build on a new part to take the place of that which has been destroyed, as we can in the case of the house. All we can do is to make the most out of what is left. It is of the utmost importance for one who has had Bright's disease to know how to live so as to make things as easy as possible for his crippled kidneys.

Q. Is neurasthenia a curable disease?

A. Yes, indeed. We are curing it all the time here. It is a very common thing for me to have an awful attack of neurasthenia after I have been working for sixteen or eighteen

"The Greatest Tonic in the World"



Q You have still to enjoy the greatest tonic in the world if you are not yet taking a cold shower—rain, needle, or spray—every morning. Nothing in all this wide world can equal it as an eye-opener, appetizer, and invigorator. It makes you all aglow with that fine feeling that life is worth living.

Q Would you pay a hundred dollars to enjoy this luxury in your own home every day for the rest of your life? It sounds incredible, but that is really all you have to invest to secure the KELLOGG HOME DOUCHE, which can be installed in your own bathroom, ready for immediate use at your own pleasure.

Q With your hand in easy control of the water valves, you can take your choice of the shower from above, the needle spray from the sides, the ascending douche from below, the jet or the spray from any position—or combine any and all to suit your royal will, at any temperature you can stand, cold or hot. Truly a royal treat, to say the least.

Q The Kellogg Home Douche gives you in a more convenient form practically the same advantages as the

celebrated Kellogg Douche Apparatus now in use everywhere in sanitariums, hospitals, treatment rooms, gymnasiums, etc. And the Home Douche dispenses with the attendant—you operate it yourself, and get as good results.

Q And if you use it daily, you may steer clear of the day when you have to go to a sanitarium to get water treatment as a cure. Get it now as a preventive—in your own home.

PRICE:

The Kellogg Home Douche Apparatus, complete with attachments for Spray, Fan, Jet, and Ascending Douches	\$100.00
Duck Curtain and Curtain Rod, extra	10.00
Three Kiln-dried Hardwood Slabs with wood basin and floor drain (the good wood basin is to be filled in with cement by your mason), extra	35.00
Health, Slate Slabs, each, extra (wood slabs just as serviceable)	15.00
Battle Creek, Marble Slabs, each, extra	35.00
Mich.:	

I am interested in your Douche for the Home—send me full particulars.

Good Health Publishing
Company

Battle Creek, Michigan



If your bowels don't move well every day, why don't you try

COLAX

This is a cake preparation of a Japanese seaweed. Its great power over

Constipation

comes from its water-holding properties. It slips through the intestine, carrying away the bacteria and poisons.

Send \$1.00 for large package.

THE KELLOGG FOOD COMPANY
Dep't D15 Battle Creek, Michigan

hours, about three o'clock in the morning; but four or five hours' sleep cures it. That is acute neurasthenia. Everybody has it when very tired. But if it is chronic neurasthenia, one does not get over it by a night's sleep, as the healthy man does. It means that the body is saturated with poisons, and these can not be got rid of by a night's rest. The habits must be corrected and health of mind and body cultivated in every possible way.

Q. What is the best thing to do for sunburn?

A. A little cold cream is just as good as anything. I am glad to hear that somebody is getting sunburned. It is a very good symptom. If everybody in this audience would get his skin tanned until he was almost as brown as an Indian, it would be one of the best things that could happen to him. The skin is one of the most important of our vital organs. It does the same kind of work that the kidneys and the lungs are doing. The skin is made inactive by being covered up by black clothes. We must give the light a chance to reach in through our clothes and get at our skins. The outdoor gymnasium is for the purpose of making you shed most of your clothes. Go in there and let your skin come in contact with the life-giving rays of the sun.

Q. I have been told to keep the protein at one-tenth. What proportion of fats and carbohydrates should I use?

A. Take about thirty per cent of fats, three times as much fat as protein. One-tenth protein, three-tenths fat and six-tenths carbohydrate.

Q. What effect has nux vomica upon the system?

A. It is a nerve fooler. It makes you think you are better when you are not better; it makes you feel stronger when you are not stronger; it makes you think you are rested and recuperated when you are not recuperated. It simply irritates the nerve centers and induces a morbid activity which is in no way conducive to health, but the very opposite. There is no drug that will create new tissues and restore a worn-out body. That can be done only by natural processes, by the great biological laws that are in operation in our bodies. The only way in which the body can be restored is by rebuilding or renewing the tissues.

Q. What is the cause of rheumatism?

A. Acute rheumatism is produced by germs. Chronic rheumatism is in my opinion generally due to the saturation of the body with poisons resulting from putrefaction of excessive protein in the colon.

Q. Would you think it best to fast after a severe attack of autointoxication?

A. Yes, it is a good thing to fast; but that does not mean that you must abstain from food, but only from certain kinds of food. One should fast from beefsteaks, from fried chicken, and from all sorts of unwholesome things that are liable to putrefy outside of the body. When a person who is

in a state of chronic autointoxication eats things that can putrefy, they are certain to undergo putrefaction in his body; he has lost the power to appropriate that kind of foodstuffs, and he needs to confine himself to the smallest amount of protein that the body absolutely requires.

ARRIVALS

THE arrivals at the Battle Creek Sanitarium for the week ending August 27 were as follows: Mrs. Clara M. Richardson and E. E. Wilmore, Mich.; N. B. Moore and wife, Okla.; Harper Reed, Mich.; Henry Levy, Mo.; Henry Mack, Buffalo; H. E. Frost, Tenn.; Mrs. W. T. White, Tex.; C. A. Dixon, Ill.; P. H. Blelock, Mo.; Mrs. S. C. Humphreys, Ont.; M. L. Whitbeck, O.; Ada R. Calloway, New York City; Mr. and Mrs. Chas. E. Washburn, Mo.; G. W. Reed, Mich.; Alice Berland, Mich.; J. M. Knight,

Botman, Neb.; N. E. Keeler, Cincinnati; Mrs. G. I. Hammons, Ky.; Geo. Phillips, O.; W. D. Hubbard, M. D., Wis.; R. D. Alvoorth, Minn.; C. E. Dobson, Fla.; Mrs. C. T. Brant and daughter, N. Dak.; Geo. W. McCain, Ind.; Mrs. Hallie J. Russell, Tex.; L. C. Kuker, S. C.; C. J. Swasey, Tex.; Mrs. W. H. Westerbrook and son, Ark.; Vina Nelson, Ia.; Mrs. C. H. Dockstader and daughter, N. Y.; M. L. Davie and Thos. Burdeshan, Ala.; K. L. Whittle and Mrs. W. E. Whittle, Fla.; Ravina Fournadjeff, Bulgaria; E. G. Gibbons, Tenn.; Mrs. D. McGiffing, N. Y.; Miss I. Fitch and Miss Katharine Fitch, Ky.; Mrs. E. H. Vilatins, Detroit; Alexander Turk, Chicago; F. F. Doyle, Fla.; H. A. Hughes, Ala.; J. S. Young, Ark.; Mrs. Kent Jarvis and Stephanie Jarvis, Mo.; Mrs. Olive Waters, Grand Rapids; Fred Wernecke and wife, Chicago; Tom B. Marquis and H. K. Yaggi, O.; Mrs. B. F. Bailey, Mich.; Mrs. E. R. Carpenter and Miss Aiddison, Okla.; Jno. F. Cole, Tenn.; Mrs. R. H. Trombley, Ia.; Mrs. Amelia Berg,



A GROUP OF MICHIGAN GUESTS

Boston; C. L. Mason, O.; Emily May Ely, Mich.; Mrs. J. L. Demming, Ind.; S. S. McClure, New York City; Dr. J. R. Hall, Mo.; E. H. Kirk, O.; M. Bluestein, La.; Dr. Carl E. Cous and wife, Ia.; Mrs. E. R. Carpenter and Miss Arildson, Okla.; Mr. and Mrs. Robt. F. Fulton, O.; John W. Voster, Pa.; Dr. M. V. Kimball, Calif.; Harriett Lewis, O.; Miss M. Kinman, Mich.; W. H. Stewart, Ga.; Martin D. Baker and Mrs. Jno. J. McLesu, Ill.; W. D. Brookfield and wife, N. Y.; Wm. A. Field, Chicago; Mr. and Mrs. J. D. McCartney and Miss Marion Dean, Ga.; Max Mindres and wife, Chicago; Mrs. M. B. Margaw and child, Miss.; G. A. Gausko and son, Neb.; R. E. Jones, O.; Robt. Walker, Mo.; Dr. E. G. Lancaster and wife, Mich.; M. O. Callaghan, Chicago; H. Lemoneare, Ill.; L. J. Ashley, Ark.; Walter H. Kirk, Ill.; Chas. Youngheim, Kans.; Mrs. J. K. Mitchell, Ill.; W. K. Morley, Grand Rapids; E. D. Gilbert, New York City; W. E. Duttonhout, Toledo; W. B. Hewes and wife, Clarence Hewes, Miss Amy Hewes and Miss Florence Hewes, La.; C. W. O'Donnell, M. D., N. Y.; C. F. Gesell, Wis.; Chas. Lehman, Cincinnati; C. L. Sherwood, Ia.; Mrs. F. W. Hayes, O.; Geo. G.

Mich.; Mr. and Mrs. G. E. Travis, Ill.; Mr. and Mrs. D. D. Casement, O.; Mr. and Mrs. Richard C. Otis, N. Y.; Dr. Harriett L. Hawkins, Detroit; Frances Deming, Mich.; Mrs. Wm. Lohmeyer and Wm. Lohmeyer, Jr., W. Va.; Edwin B. Cox, Ark.; H. C. Rather and wife, Ark.; John D. Ratheoff, Ala.; C. E. Bennett and wife, Okla.; Mrs. A. W. Reed, Ind.; Julia P. Alexander, Mich.; Mrs. A. E. Freeman, O.; E. S. Kistler, wife and son, Okla.; Mrs. G. H. Murphy, City; John S. Bowers and French Irwin, Ind.; Anna Polshik, Cleveland; Helen Fried, Detroit; Wm. P. Smith and Frank Wachtler, Chicago; L. Krauss, La.; Mrs. J. R. Jones, China; Mr. and Mrs. C. E. Chappell, Mich.; Mr. and Mrs. E. Morgan, Chicago; F. Moore, Mich.; Thos. J. Smith and wife, O.; Mrs. E. L. Weil, La.; Mr. and Mrs. Edgar W. Holmann, Ark.; Mrs. C. F. Anderson, Ky.; Mrs. Sam McCullon, Miss.; Miss Annie M. Cummings, Tenn.; Mrs. Chas. M. Cole and Albert Cole, Mich.; H. B. Plumb and wife, City; A. L. Hawkenson and H. C. Berg, Ia.; Mrs. Geo. F. Beecher, Okla.; B. B. Beecher, Tenn.; Ruth Pinch, S. Dak.; Benj. Thomas, Chicago; W. M. Cown, Detroit; Mrs. Hugh

Daly and Hugh Daly, Jr., Chicago; D. A. Scott, Ind.; Chas. Powell and son, Chicago; Mrs. Edwin T. McNeely and Miss Evelyn McNeely, Ind.; Chas. Wright, Ind.; C. E. Ferguson, Ark.; R. I. Brown, Pa.; Wm. R. Arnold and Geo. C. Arnold, R. I.; E. S. Gaylord, Conn.; T. E. West, Tex.; A. K. Gatcheld, O.; Miss Kate E. Ward, Mich.; Mrs. G. J. Beck, N. J.; C. H. Vitalins, Detroit; Alice Wildman and Mrs. Harriett E. Wildman, and J. C. Wood and wife, Ala.; A. E. Becker, Utah; C. L. Ragon, Ind.; Mrs. R. Kaminer and Miss Frieda and Blanche Kaminer, Ill.; Sam'l Schlong, N. Y.; F. S. Willingham, Ky.; Mrs. R. T. Offert, Kansas City; Mrs. E. H. Hughes, Tex.; A. W. Flint, Detroit.

News and Personals

Charles Lehmer, attorney, of Cincinnati, was among those who registered during the past week for a few weeks' health visit.

Mrs. W. B. Morgan, of Corinth, Miss., wife of W. B. Morgan, roadmaster of the southern division of the Illinois Central Railroad, is among the patients.

Miss L. A. Dean, daughter of L. A. Dean, a prominent lawyer of Rome, Ga., arrived the early part of the week and expects to spend a few weeks at the institution.

Thomas Allen, of Auckland, New Zealand, a well-known newspaper correspondent, who has traveled the world, is spending a few days here, and now asserts there is no place like the Battle Creek Sanitarium.

M. Mindas, of Chicago, president and treasurer of the Co-operative Tailors of America, is among the prominent guests from the Illinois metropolis. He will stay a few weeks.

Attorneys were noticeably in evidence among the list of arrivals at the Sanitarium during the past week. Among the more prominent of these are H. E. Frost, Nashville, Tenn.; and John W. Vosler, of Greenville, Pa.

Mrs. S. F. Heath, of Oberlin, O., mother-in-law of the eminent French teacher, Prof. R. P. Jamson, of Oberlin College, arrived at the Sanitarium during the past week to spend a few weeks in recuperation and treatment.

Pastor Randolph, of the Seventh-day Baptist church at Milton, Wis., occupied the chapel pulpit on a recent Sabbath morning. His discourse was listened to by a large and appreciative audience. Pastor Randolph came to visit his son, who recently underwent a surgical operation and is recovering.

Miss Lida B. Smith, missionary to Kogoshima, Japan, is a guest at the Sanitarium.

Miss Smith has been in Japan since 1885. She has spent a year with relatives in this country, and expects to spend several weeks at the Sanitarium, after which she will return to the land of the Japanese.

The way cotton is growing in Texas is the cause of considerable happiness on the part of several planters from the Lone Star State now at the Sanitarium recuperating. It is reported that the crop is so abundant that there is not enough help in the State to harvest it as it should be harvested.

Michigan is again demonstrating the superiority of its summer climate over any other brand on earth. While the South and East have been suffering from the usual blaze of heat, augmented by dense humidity, those who have been fortunate enough to be located in Michigan have been enjoying most delightful weather.

We have been pleased to meet Mr. John D. McCartney, publisher of the *Tribune-Herald*, of Rome, Ga., who is spending a period at the Sanitarium in company with his wife. Mr. McCartney is a confirmed friend of the Sanitarium, and is taking the opportunity to let the readers of his own paper know something of his observations and conclusions.

Among the guests arriving this week are: C. L. Wasson, photographer, Decatur, Ill.; Judge N. B. Moore, Haskell, Okla.; P. H. Blelock, of St. Louis, shoe manufacturer; G. W. Reid, postmaster, Stanwood, Mich.; Mrs. Clara Richardson, Charlotte, Mich., who was a guest twenty years ago; W. B. Brookfield, Syracuse, N. Y.; Edward Pfister, optician, New Iberia, La.

Dr. Wm. W. Hastings, dean of the faculty of the Normal School of Physical Education, leaves this week on a lecture tour through various States in the interests of the school. His first stop will be at Detroit, where he will lecture in the Y. M. C. A., then on to Cleveland, from Cleveland to Rochester and Portland, Me. He expects to be gone until the latter part of September.

During the past couple of months there have been a great number of teachers at the Sanitarium seeking recuperation from a hard year's work. They have not sought in vain, for they are now able to return to their respective classes with rested brains and improved physique. Miss Margerie Kinnan, a teacher of Whitmore Lake, Michigan, arrived during the past week to spend a few days.

The list of practicing physicians stopping at the Sanitarium for rest and treatment is increasing day by day. It is gratifying to note that medical men of influence are the most cordial supporters of the physiologic treatment of disease as practiced by the Sanitarium. Among the arrivals this week were five well-known physicians from as many States, who will test the merits of the Battle

Creek Sanitarium system in their own persons. Physicians are the most appreciative patrons of the Sanitarium.

A rather unique sort of an entertainment was given during the past week by Doctor Case, in charge of the X-ray department, in the form of an "X-ray evening," in honor of several visiting surgeons at the Sanitarium. Among those present were Dr. G. A. Thomason, of Cape Town, South Africa, formerly private secretary to Dr. J. H. Kellogg, and Mrs. Thomason; Doctor and Mrs. Groff, of Rome, N. Y.; and Doctor and Mrs. Lindsay, of Chamberlain, S. D.

Mr. and Mrs. M. W. Wentworth opened their residence on the evening of August 24 to a large company of the friends of Dr. Geo. and Mrs. Thomason, who have recently returned for a vacation after an eight years' sojourn in South Africa. Doctor Thomason was formerly connected with the Sanitarium, but went to Cape Town to take charge of an institution there, and has been most successful in the undertaking. Their many friends extend to them a cordial welcome home.

The public drinking cup is being rapidly relegated to the musty past. One traveling now finds it necessary to provide himself with his own drinking cup or go thirsty, for he would hardly have the cheek to ask a neighbor to lend him one, any more than he would ask for the loan of his spoon at the table. The Sanitarium is leading out in this matter in providing paper cups, which are handed out by a machine on touching a lever. At other places bubbling fountains are constantly flowing with pure cool water from an artesian well.

The concert given by Miss Alice Pinch on Saturday night in the Sanitarium proved to be most acceptable to the large audience assembled. Miss Pinch possesses a voice of unusual quality, which gives the impression of largeness and power combined with sweetness. Her rendering of the famous arias from *La Traviata* and *Mme. Butterfly* was really artistic and showed the result of her thorough training under the great singer and master, Jean de Reszke. Miss Ruth Pinch furnished the accompaniments and played two charming selections from Grieg and MacDowell.

The closing exhibition of the summer session of the Normal School of Physical Education, held in the Sanitarium gymnasium on Tuesday evening, August 22, was an unequalled success in the history of that educational institution. Doctor Hastings, dean of the school, presided as chairman. The program was a practical demonstration of the completeness of the curriculum of the school and the thoroughness of the training. All the performers did credit to themselves and their instructors. The large audience, which filled the gallery of the big gymnasium and lined the walls of the main floor, were enthusiastic in applause.

THE BATTLE CREEK IDEA

VOLUME IV
NUMBER FORTY

\$1.00 A YEAR
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PUBLISHED WEEKLY AT BATTLE CREEK, MICHIGAN. SEPTEMBER 8, 1911

A University of Health

A Title Often Applied to the Battle Creek Sanitarium—How the Name is Earned, and What It Signifies

It was at the time of the World's Fair at St. Louis that the Battle Creek Sanitarium first received the title, "A University of Health." The management of that great enterprise invited the Sanitarium to make an exhibition of its work and gave it a position in the section

Outdoor Sleeping

How People in Sedentary Life May Keep Well—The Advantages of Open-Air Life Set Forth by Dr. J. H. Kellogg

It is possible for a man to live a sedentary life and still be healthy. It is not necessary for a man to be outdoors all the time, and going through all kinds of violent activities in order to be well; but a man whose employment is sedentary must in the first place re-



SENDING OUT THE BATTLE CREEK IDEA

occupied by the great universities and hospitals of the country. The term, university, is applied to institutions of advanced learning, where education in highest and broadest measures is promoted and disseminated. The university is a great intellectual lighthouse shedding its rays over all the surrounding country.

That the term "University of Health" as applied to the Battle Creek Sanitarium is appropriately placed is the claim of all who visit the place and become acquainted with the vast scope and thorough character of the work done here. The title has been bestowed by its friends rather than claimed by its managers. The subject of health has many sides and extends out into the various avenues of life and sustains an intimate relation to all the features of life, social,

(Continued on page two)

strict himself to a reasonable number of hours. Six or seven hours are enough for close confinement in sedentary employment. He must spend at least two or three hours out of doors every day in active, vigorous exercise, hard enough to make him sweat. The Lord told Adam that he must earn his bread by the sweat of his face, and he never took it back. What God said to the first Adam is just as true in relation to every other Adam. Man must earn his bread by the sweat of his brow, and if he does not sweat, he has to take the consequence, which is premature old age. The men who live to old age are men that sweat.

The Man Who Lived the Longest

in modern times was Thomas Parr, of England, who lived 152 years and nine months, and he was a hard-working man. He was

Original from

UNIVERSITY OF MICHIGAN

able to swim swift rivers when he was 120 years of age, and worked for a living until a few weeks before he died. The king was so interested in him because of his advanced age that he sent for him to make a visit, and feasted him for two or three weeks; then the old gentleman had a fit of indigestion and died.

The man of sedentary employment should sleep outdoors. His business may compel him to work indoors, to live a somewhat artificial life during working hours; but the most important part of the time, while he is sound asleep, he can live outdoors; there is no excuse for living a sedentary life when he is asleep. We throw away our best chance for cultivating health by sleeping in poorly ventilated sleeping rooms. I can not sufficiently emphasize that thing. I never think of going to bed in a close, unventilated room. One has no idea of

The Delight of Sleeping in Cold Air

until one has felt it. When we go to bed at my house in cold weather we look as though we were going out for a sleighride; we dress up with thick, heavy robes so warm we can sleep in comfort. We do not suffer from the cold, I assure you. The benefit of cold air sleeping is simply the breathing of pure cold air. Cold air from outdoors is always pure air, because the germs are all frozen up. There is no putrefaction going on in winter time, there is no contamination; the air comes for thousands of miles over the snow fields, and it is absolutely pure; there are no germs, no foul gases, no dust in it.

But that is not all. This cold air taken down into the lungs is spread out over a surface of two thousand square feet. Who ever imagines there is so much space as that in the lungs! Suppose you had ten square feet of the finest gossamer silk you ever saw, you could crumple it up and hold it in your hand very easily. The thinnest fabric you ever saw is many times thicker than this delicate membrane that lines the lungs; so it is possible for two thousand square feet of it to be folded up in one pair of lungs. If the membrane of one pair of lungs were all spread out, it would just about cover the floor space of this room. Underneath this thin membrane all the blood flows every three minutes, and the air comes right against it, passes into it quickly, so

The Blood is Quickly Aerated.

When you get up in the morning and have a cold spray it makes you feel as though you had springs in you. When you take cold air down into the lungs, it produces the same tonic effect as a cold application to the skin, only not quite so intense. We have twenty-one square feet of skin, and 2,000 square feet of lungs, or one hundred times as much lung surface as skin surface; so the application of cold air to the lung surface has a very great importance as a tonic, vitalizing measure. It is a very small application, it is true: only twenty-five to thirty cubic inches of air that we breathe in at each breath; but we breathe a thousand times an hour, and each breath is a little cold bath, but a thousand of them make a splendid maximum, you see; and then eight hours' sleep means

8,000 little cold air lung baths, every one of them a little tonic lift toward health.

If you have a chance to sleep outdoors (and everybody may have), by all means do so; it is better to sleep outdoors than indoors, because one can sleep a great deal sounder and there is more room outdoors than indoors. The sedentary man and woman should not fail to do it. I hope every one of you when you go home will establish outdoor sleeping in your homes.

Do Not Fail to Do It;

if you do it, you probably will not have to come back here for treatment. It is astonishing how long it takes to learn that it pays to obey the laws of health. Outdoor sleeping is one of the conditions that we can not infringe without suffering.

Away back thousands of years, nobody knows how long ago, our ancestors, emigrating from the tropical regions, which is the natural home of the race, into the regions of frost and snow, after shivering around in the cold a while, moved into holes in the ground to get away from the terrible cold. Somehow we have never been able to get out of those holes. We have built a roof over the hole, and by and by we built a room on top of the hole, then we built another room on top of that room, and we have two-story or three-story houses, and we are going to have fifty-story houses, possibly.

But We Are Still in the Hole,

and the houses are made so tight that they are simply extensions of the underground holes the cave-men dwelt in back in a time too remote for history to give us any information about it. We are still practicing that habit, and that is one reason why we are degenerating. We have got to get out of the hole into the open, fresh air, the great ocean of life-giving influence that is all about us, and drink it in. That is a resource for health and energy that we can not possibly exhaust. There is always free access to it.

A UNIVERSITY OF HEALTH

(Continued from page one)

industrial, commercial, professional, for there is no station or calling but demands good health and vigor as one of the fundamental considerations of success.

The people are being destroyed for lack of knowledge in the matter of health conservation. Ignorance is the handmaid of death and destruction. This is an age of boasted enlightenment, and yet the people at large are lamentably ignorant of their own bodies and of the laws which govern the preservation of life and health. People take upon them the problems of life for themselves and their families, who are woefully ignorant of the very first principles of healthful and sane living. They make a science of business but blunder along in matters of health and hygiene, undermining their health and bringing upon themselves premature failure, and plunging their children into invalidism or sacrificing them outright upon the altar of ignorance.

Is There Not Abundant Room

for a university of health? Is there not an evident necessity for a great institution that shall have for its object the education of the people along all branches of the subject of health and sound living? Surely there is a great need of such an institution from which shall be sent forth to all the world the knowledge of right living. The world is so full of invalids that there is scarcely a man or woman who can claim to be in possession of perfectly sound health.

Nearly forty years ago the Battle Creek Sanitarium set forth to do all that should come within its power to educate the people in the subject of health. At that time ignorance was even more dense than now. The prevailing medical science and practice of those days embraced much that was false and evil.

The Gospel of Health

as preached from this institution in those days was not well received; it was greeted with scoffs and ridicule. But gradually it came into recognition, and has now won its way until these very principles are embodied in the most advanced scientific teachings of the day.

Since the establishment of the Battle Creek Sanitarium, many thousands of invalids have come to it, and have experienced great help and relief. All those who were willing to give heed to the teachings offered them, and to adopt the measures proposed, and who had not gone beyond the limit of possible recovery, have found great help, and those who were willing to follow up what they have here learned have been helped back to health and efficiency. Scores of thousands have been thus blessed by becoming acquainted with the principles of right living.

But all the good that has been done in affording actual relief to the sick and distressed bears no comparison to the far greater amount of good that has been done in giving to the world the light and knowledge that comprise an intelligent understanding of the laws of life, the dangers that beset us, and how to avoid those dangers.

It is considered a very important part of the work of the institution to give to each one who comes here for medical help

An Intelligent View of His Own Case,

and especially of the real sources and causes of his troubles. His habits of life are scrutinized, and he is faithfully shown the mistakes he has been making, and the influence those mistakes have had upon his health. He is shown the right way to live, and how he may avoid those troubles in the future. He not only has the benefit of instruction in his own case, but he has the opportunity to learn of many other cases, and to learn from lectures and demonstrations that are being constantly placed before him very much about the art and science of health conservation on general principles; so that after a few days at the Sanitarium he realizes that he is back in school again, and is being actually taught by competent teachers things of the very greatest importance to him. He can not but reflect, and is often heard exclaiming, "Had I known these things years ago, I might have been saved much trouble."

If he is at all wise and prudent he re-

turns home after a short sojourn, and feels that he has indeed been at a great university where the whole matter of health has been studied and illustrated to his mind. He becomes an advocate of the principles and methods revealed to him and is an active agent in teaching them to all as far as his influence extends. The six or eight thousand patients who come here each year and return to their homes with this message of health form a great educational force that is constantly exerting an influence upon the public and reflexly upon the medical profession as well. And thus it is that the Battle Creek Sanitarium stands before the minds of its friends as a great university of health, a center from which emanates to the world around light and knowledge that lead to better living, to better health, and to greater happiness.

HEARD IN THE SANITARIUM LOBBY

"I KNOW that the Battle Creek Sanitarium and the Battle Creek Sanitarium system will help me." Thus speaks conviction born of experience. The man who has watched and felt the revitalizing power of the Sanitarium treatments is the man who with sincerity will recommend them to others, because he knows that this is the true reconstructor of the human system. Following is what a few of the present guests at the Battle Creek Sanitarium have to say of the institution and its system:

FRANKLIN MOORE, treasurer of the Diamond Crystal Salt Company, St. Clair, Mich.: "I came to the Battle Creek Sanitarium for the first time seven years ago, and with the exception of one summer I have been here for a short stay every year since. I have received remarkable benefits from the treatments and the life here, but I have in the past made the common mistake of believing too soon that I was sufficiently restored to health and didn't need to stay longer. I am satisfied that there is no place in the world which compares with this institution in the opportunities it affords for the restoration to health of its patients."

DR. E. S. GAYLORD, New Haven, Conn.: "I am always pleased to express my hearty approval of the various scientific methods instituted and conducted in this great institution. I came here at the solicitation of several friends and patients as a somewhat doubting Thomas. After ten days' observation I leave here a convert to not only the very thorough treatment but the dietary, which is indeed national efficiency. Hereafter I intend to make annual sojourns at this fountain of good health."

E. PFISTER, jeweler, of New Iberia, La.: "This is the best place to get back your health that I know of in this world. Everything is on a scientific foundation of the basic principles of truth, which can not help but make this institution grow and prosper. This is my second visit, and I could not have asked for anything better. The attendants are very attentive and obliging, and there is also a high moral atmosphere which permeates throughout, to the great benefit of the patients."

H. SCHAFER, United States government revenue officer, of Cincinnati, Ohio: "It is six weeks since I came, and my lost health has been regained. I can not say enough for the Battle Creek Sanitarium and the Battle Creek Sanitarium system. I enjoy the treatments and the food, and altogether was never more satisfied with a place in my life than I am with this one."

F. H. WILLINGHAM, banker, Sturgis, Ky.: "This is my first visit to the Battle Creek Sanitarium, but I sincerely hope it will not be my last. I had decided to go elsewhere to spend my vacation and attempt to regain my lost health, but owing to the urgency of so many friends who had been former patients here, and had got better, I was induced to change my mind. As a result I am here, and doing just what they said I would—get better. This is a wonderful place. I like everything about it."

J. C. KUKER, Florence, S. C., realty dealer: "The Battle Creek Sanitarium is,

and so bad that I could not walk. To-day I am getting along nicely on crutches, and before many weeks I shall be walking around as well as any person. That's how much confidence I have in the Battle Creek Sanitarium. There is no place on the face of the earth to even equal it. It is true there are a great many so-called curative resorts, but this institution is superior to them all. I can not say enough in its favor."

GEORGE HERMAN, capitalist and farmer, of Houston, Texas, says: "It makes one feel good to note the steady increase in popularity of this greatest of great institutions. I have been here several times, and each time have received such benefits that I am going to keep on coming year after year. It is a remarkable institution, with an equally remarkable system. The diet is excellent."

DR. GEORGE P. HALL, an eminent practitioner from Houston, declares: "In reiterating the statements given out by some of



SANITARIUM GUESTS FROM OHIO

without a question, the greatest and most curative institution in the world. I have heard of the treatments of many, and been at others, but none have shown the beneficial results that are in evidence everywhere about this place. My mother and father came here three months ago. I have only been here a week, but will stay as long as possible."

J. B. FARTHING, president of the J. B. Farthing Lumber Company, of Houston, Texas: "This is my third visit to the Battle Creek Sanitarium, which goes to show how much I think of the place, and there's nothing I enjoy better or get more benefit from than a visit to this institution. My family are as enthusiastic over the place as I am. I wish that more people throughout this big world knew of the benefits to be gained here. I am sure that if the real good this institution is doing were to become known, all the buildings in Battle Creek could not accommodate the influx of patients."

J. W. ORMOND, in the general mercantile business at Meridian, Miss.: "I came here four weeks ago suffering from rheumatism,

your guests and published in recent issues of the BATTLE CREEK IDEA, I feel that even then I do not do justice to the situation here. The Western world is opening its eyes at this place. I have been here before, and I notice a difference between then and now in the patronage. Everything is on the increase."

JOHN P. HERNICK, a well-known newspaper man of Olean, N. Y.: "I think that the diet is one of the great and interesting features of this Sanitarium. It is truly wonderful how such excellent substitutes for meat could be formulated. I can not express myself to the degree that this Sanitarium and its system deserves."

H. H. WILSON, attorney, Lincoln, Neb.: "I will readily agree with anything good you want to publish about the Battle Creek Sanitarium. I am of the opinion there is no other place just as good. I have been here before, and I hope to come again. The benefits to be derived here are nothing short of wonderful."

FROM A SANITARIUM GUEST

THE following communication was handed to the editor by one of the Sanitarium's highly esteemed guests, Mr. Julian S. Alexander, a prominent attorney of Meridian, Mississippi. It corroborates very strongly the article previously written on "A University of Health," found on the first page:

"One of the Sanitarium's chief sources of recommendation, in this day when even genuine health methods are likely to be viewed suspiciously, is the great number of people who have been restored at the Sanitarium, and who return year after year merely for the recreation. Indeed, there are few

for the intellect, and it is just as important. There are few places more delightful to spend a vacation, no matter to what extent the treatment may be necessary. It is essentially a place where one does everything for health, and yet the sound sense of the methods appeals too strongly to one's reason to permit the criticism of radicalism. The Battle Creek Sanitarium is one of the few places where the weary rest-seeker can enjoy a month's rest and leave really rested and benefited. To prove the popularity of the institution, one needs only to return a second or third time and discover the number of familiar faces of those who return regularly."

the foot turns out, the ankle rolls in, and the person really walks upon his ankles; so by turning the heels out, the very opposite way, and turning the toes in, there is a tendency to correct the difficulty.

Q. How can one control an excitable nervous organization?

A. In the first place quiet that nervous organization by cutting out all stimulants—mustard, pepper, and tea and coffee, and meats of all kinds, because the poisonous irritating substances in condiments, the extractives or excretory products in meats, excite and irritate the nerves. The next thing is to take plenty of sleep. Take a day off



ILLINOIS PEOPLE AT THE SANITARIUM

people whom the Sanitarium can not help, unless it be the small class of incurables. The Sanitarium and its methods are aimed at the entire individual and contemplate producing a perfect machine, and it can be readily seen that there are none whom it can not in some way benefit, since modern times show few perfect humans.

"As has been frequently observed, although the Sanitarium is primarily a home for invalids and those who need building up generally, it is the healthiest looking family of sick people imaginable. This is not only because those who are not well absorb the spirit of optimism and become infected with the contagious energy and life, but because there are in fact many who come merely for the sake of the homelike atmosphere and genuine pleasure of the daily program.

"Yet there are possibilities of entertainment and recreation that are duplicated as completely in but few ordinary summer resorts. The most energetic athlete might find abundant opportunity to pursue his favorite pastime and be limited only by his own inclinations. The Sanitarium is a school for health and does for the body just what our educational institutions are intended to do

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 topics.

QUESTION. Does oil, when rubbed on the body, fatten as well as build up the nerves?

ANSWER. No, it has no effect at all in that way. It improves the circulation, the appetite, and the general nutrition, and in that way is beneficial.

Q. What exercise is good for fallen arch of the foot or instep?

A. One exercise that is excellent is to walk obliquely on tiptoe, with the heels turned outward. When you rise on tiptoe, turn the heels out, and the arch rises. The tendency with flat foot is to turn the toes out so that the arch finally gives way, and the whole foot comes down flat upon the ground, then

now and then and stay in bed all day. Take a neutral bath at night. Whenever you get to feeling high strung, and find your temper is getting unreasonably excitable, go and get into a bath and stay there until you get over it. The temperature of the bath should be 95° F. Cold water and hot water will excite your nerves, but water at neutral temperature will soothe you off to sleep. One can not get hot-headed under such circumstances.

Q. Is pure cider vinegar made from sound apples objectionable?

A. Yes, the purer the cider vinegar, the worse it is. There is nothing but pure vinegar that has wrigglers in it. Hydrochloric acid vinegar, and vinegar made from sulphuric acid and such things, never has vinegar eels; but hold up pure cider vinegar to the sun in a glass and you can see a wriggling menagerie. Study them the next time you get a chance, and you will not want to eat any more vinegar. Lemon juice is infinitely better and entirely harmless. Acetic acid, the acid of vinegar, is poisonous and interferes seriously with starch digestion in the stomach.

Q. Is cottonseed oil a good substitute for olive oil?

A. It seems to be used quite extensively; but the cotton root contains poisons, and cottonseed oil, I think, is yet on trial; so we do not use it here. It is refined by chemical processes, and I have felt that it is not really a wholesome food on that account.

Q. Can skin cancer be known in its early stage?

A. Yes, the diagnosis can usually be made without any difficulty.

Q. Do you recommend the knife, or local treatment?

A. The X-ray properly applied will almost certainly cure a superficial cancer.

Q. Is tuberculosis of the bone curable?

A. Yes, it is generally curable by the same process which will cure tuberculosis of the lungs—by the outdoor life and a pure diet. The X-ray is useful also in many cases, and especially the arc light. Sometimes, when the bone is dead, it must be removed.

Q. How many times a day should an active boy of thirteen eat?

A. A boy of thirteen could eat three times a day if the right food is eaten, but he ought not to eat anything at night that is hard to digest; and one of the things hardest of digestion is bread and butter. He may have rice and fruit. There is nothing better for supper than that.

Q. What is the best way to build up the nervous system?

A. To build up the body in general.

Q. What treatment would you prescribe for eczema in the palms of the hands?

A. The X-ray is almost a certain cure, but it will not stay cured. It is necessary in addition to that to adopt an antitoxic diet. Dr. L. Duncan Bulkley, the leading skin specialist of New York City, has published within the last month a very interesting paper in which he gives an account of 150 cases of skin diseases of the most chronic character,—psoriasis and eczema,—cured by the vegetarian diet. Doctor Bulkley has used this remedy for thirty years. He is not a vegetarian himself, I might say, but he prescribes the vegetarian diet for patients with skin diseases, because he has found it will cure them.

Q. What is the cause of autointoxication?

A. The cause is decomposition in the intestine, maybe meat which you have eaten; or it may be bile from the liver which has been retained when it ought to have been discharged. It is just as important that the secretion of the liver should be discharged promptly from the body as that the excretions from the kidneys should be promptly discharged from the body. The bile is six times as poisonous as the urine, hence it is more important.

Q. What treatment should a girl of twenty years have whose blood is 80 and who is very nervous?

A. Turn her outdoors, let her be a tom-

boy for a while. That is the best thing for her. She has been indoors too much, practicing at the piano, perhaps, doing too much fancy work, reading too many story books. Turn her outdoors and let her live a natural life.

Q. What diet should one have with Bright's disease?

A. He should avoid meats, should have plenty of fresh fruits and fresh vegetables and cereals. He should especially avoid the use of condiments. He may have to avoid milk, and he should avoid eggs. He would find rice the best of all cereals in such a case.

Q. What do you think of Howard Carington's system of diet?

A. He believes, I understand, that we can absorb energy from the air, and so live without eating much of anything. I have not yet come to that point. I am sure we get all the energy we have from our food. I had a letter from a man the other day who said he believed we could live just as well on 500 calories a day as on more. I invited him to come here a while, and let us put him on 500 calories and weigh him every day. We would stop the experiment in time to save his life, but he would learn a good lesson.

Q. Is the sunbath in addition to the regular treatment a good thing?

A. Yes. Start with fifteen minutes, extend to half an hour, then an hour if you like. It depends upon the intensity of the sun.

Q. Is it bad to combine cream or butter-milk of any kind with stewed or fresh fruits?

A. No. It does no harm to combine fruit and cream, because the cream will curdle in the stomach, anyway. The juices of the


stomach are more acid than any fruit, so it does no harm on that score.

Q. Is it harmful to eat the skins of Irish or sweet potatoes or fruits?

A. I could not say it is particularly harmful, but certainly it is very inconvenient and absolutely useless. You might just as well eat the basket the potatoes came in, because that is what the skin is—it is simply the wrapper of the food.

Q. Why can not a person with high acid in the stomach digest starch?

A. He can digest starch, but he should



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NAMES	ADDRESSES

take care to chew it to a liquid before he swallows it; it will then pass on to the intestines, where it can be digested. The saliva which mingles with the food in chewing is active throughout the entire intestine. It is active in the stomach if it has a chance to act. After a while, it becomes inactive in the stomach, because of the acids present, but after the food goes to the intestine, the saliva is re-activated by contact with the intestinal juices; then the saliva begins work again.

Q. Can the stomach with only .38% of acid be restored to its normal condition? and how?

A. Yes, indeed. The cold bath every morning, the outdoor life, proper eating, thorough mastication of food—those are all the things needed, probably.

Q. What is the difference between yogurt cheese and ordinary cottage cheese?

A. The difference is that yogurt cheese is

made from sterilized milk and has the *Bacillus Bulgaricus* put into it in the making of it, while the ordinary cheese has molds of all sorts, and germs of various kinds gathered from the barnyard and stable.

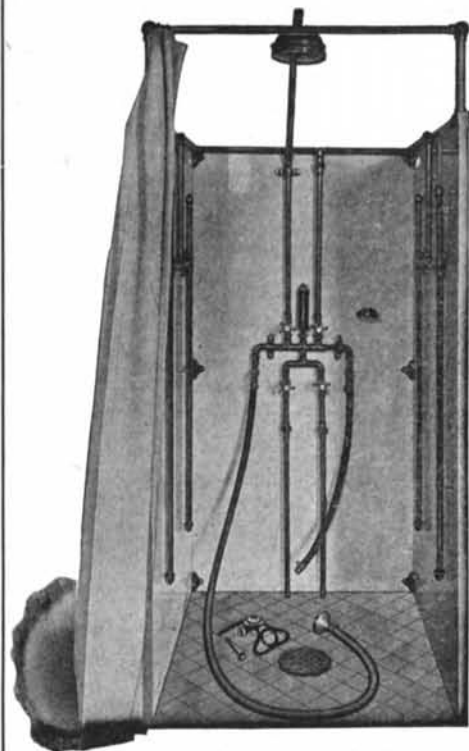
Q. If there are more than one kind of autointoxication, please describe them.

A. Well, there is only one kind in a general way, but this autointoxication may be produced by more than one hundred different kinds of germs, and each particular germ produces its own poisons, and each poison produces its own symptoms; so it has great variety.

Q. Why is cane sugar hard to digest?

A. Because it is not the natural sugar for human beings; it is natural for cows, for grazing animals, but it is not the natural sugar for human beings; it is the sugar of grass, cornstalks, cane, and roots. The sugar of fruits is another kind of sugar, which requires no digestion at all, which is ready for immediate absorption. The sugar which is most natural to the body, perhaps, or next most natural, at any rate, is malt sugar, which is produced by the action of saliva upon starch; and this is also ready for use; it is immediately absorbed, although it is usually converted into fruit sugar before it is absorbed; but cane sugar is not readily digested, because there is no digestive fluid in the body for the conversion of cane sugar into fruit sugar. Three or four hours after cane sugar is eaten, the body manages to create a digestive ferment which is able to digest it, so it is finally utilized; but very often this ferment which digests cane sugar is lacking; then the sugar simply ferments and makes mischief. It may be used in small quantity for offsetting the acid of fruits, but it does not destroy the acid; it only covers it up, and we should avoid the use of cane sugar as much as possible, and use instead

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Q You have still to enjoy the greatest tonic in the world if you are not yet taking a cold shower—rain, needle, or spray—every morning. Nothing in all this wide world can equal it as an eye-opener, appetizer, and invigorator. It makes you all aglow with that fine feeling that life is worth living.

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malt sugar, which may be had in the form of malt honey.

Q. Do the same objections apply to beet sugar as to cane sugar?

A. Beet sugar is cane sugar. The sugar of beets, the sugar of cane, the sugar of the maple tree and other trees are all cane sugar.

Q. Are roasted or uncooked peanuts most easily digested?

A. If they are slightly baked, so they are cooked properly, they are more easily digested than raw. But if they are roasted until they are brown and bitter, fried in their own fats, they are indigestible.

Q. What treatment do you recommend for floating kidney?

A. It generally needs only to be let alone.

Q. What is the cause of eczema?

A. Poisons absorbed from the colon.

Q. Can chronic appendicitis be permanently cured without operation?

A. Usually it can. It depends on how far the disease has gone. If it has advanced so far that the appendix has become congested and is in a sloughing state, it must be removed.

Q. Is ice cream not more digestible than fruit gelee?

A. Fruit gelee requires no digestion at all; there is nothing in it that requires digestion, except a very little sugar, whereas ice cream has cream in it that requires digestion, and it has animal gelatine in it that requires digesting; it has casein in it that requires digestion, and all these things can not be digested at all while the stomach is in a chilled state, but they may undergo fermentation and decay; so it is not to be considered a wholesome food.

Q. Do you advise one with hypacidity to take a fast?

A. I do not think his acidity would be increased at all by fasting. What he needs is to chew, *chew*, CHEW. That will help his hypacidity, because it will encourage the stomach to make more gastric juice.

Q. What is the cause of white spots on the finger-nails?

A. Every one of the little marks on the finger-nails is a waymark along the path of life. You can just see your history there if you will only read it. The same thing is true of every hair you pull out. Hold it up to the light and look at it. In some places it is thick, and in some places it is thin. The thin place indicates a time when vitality and nutrition were low. The same is true of the nails, those little impressions all indicate times when the body nutrition was low, and a mark was made right there on the finger-nail, and in the hair.

Q. What, in general, should one avoid who is troubled with colitis?

A. He should avoid meat above all things. He should see that his bowels move three

times a day, and should eat cereals very largely, and sweet fruits. He should avoid milk, eggs and meat—that is, all dead things. He should take the antitoxic ferments.

Q. Is the drinking of hot water between meals of any benefit for a person suffering from dyspepsia?

A. Yes; when there is gastric catarrh, the drinking of water is beneficial. Every patient under treatment should drink two to four quarts of water a day. It is almost impossible for you to drink too much; that is, provided you drink only one glassful at a time.

Q. Is it injurious to eat less than three hours after a meal?

A. It depends on what you eat. If you eat food that requires five hours for digestion, certainly you ought not to eat within three hours, because food will still be in the stomach, and the worst insult you can possibly give your stomach is to put food into it when it has undigested food already there.

ARRIVALS

THE list of arrivals at the Battle Creek Sanitarium for the week ending September 3 is as follows: Mrs. E. H. Sebring and child, and Mrs. Chas. Jones, O.; Milton Cohan, Tex.; C. W. Piddock and wife, J. A. Carlton, and Mrs. A. W. Chase, Ga.; Mrs. James S. Glenn and children, Miss Mildred Kline, and Miss Nellie Kline, Okla.; Lester Lamb, Ind.; W. S. Phelps, Ill.; Hall Etter and wife, and Mrs. L. E. McBride, Tex.; Catherine L. Connell, Pa.; L. B. Davis, Indianapolis; Louise Schweitzer, Mich.; M. O. Callaghan, Chicago; A. A. Thomas and wife, W. Va.; S. C. Alexander and wife, Ark.; W. S. Balwe and mother, Tex.; Wm. Burtless, Mich.; Mr. and Mrs. H. L. Starker, Cuba; Mr. and Mrs. B. Butler, Chicago; Miss Lankford, Dr. B. E. Witte, Flint Witte, and Miss Minnie Laar, Tex.; August H. Gehle, Chicago; Jno. H. Pope, Tex.; W. C. Trontz and wife, Pa.; N. L. Miller and wife, Okla.; J. Hugh Burdick, Wis.; E. D. Henderson, New York City; E. R. Langworthy, Minn.; Mrs. D. B. Sufford, New York City; A. B. Holbert, Ia.; Josephine Morgan, Mo.; A. L. Hennig, Neb.; C. A. Stauffer, Pa.; Mrs. E. O. Reed, Mich.; J. H. Shosky, Minn.; G. H. Herman, Tex.; Mattie A. York, Ill.; Dr. Carl Scharp, Ga.; Wilson Schrock, Pa.; J. H. Struble and wife, and Anna M. Dryer, Mich.; A. D. Kennedy, Cleveland; J. L. Upton and N. W. Struble, Mich.; Mrs. C. A. Bartholomew, Ark.; Mr. Oscar Colege, City; Mrs. C. E. Ferguson and Miss Virginia Ferguson, Ark.; Mrs. A. K. Gotchell, O.; John P. Herrick, N. Y.; Mrs. I. A. M. Benjamin, San Francisco; Maude H. Sayer, Tenn.; W. J. Lyons, Tex.; W. B. Anderson, Tenn.; Mrs. C. Parker and Mrs. L. Kempner, Ark.; E. L. Freudenstein, Ill.; W. E. Massey and son, Ark.; Mr. and Mrs. Geo. M. Moody, N. Y.; Mrs. James Luton, Ont.; Dr. L. S. Luton, Mo.; E. J. King and wife, Mich.; L. J. Dunning, Ind.; Z. Patchen, Chicago; A. W. Nickle, Ill.; Mrs. L. E.

Kaus, Ind.; Mrs. A. J. Beal, Ind.; Loie M. Osborn, N. Y.; Mrs. F. M. Robinson and Nina Robinson, Okla.; B. F. Schoenburg, Ind.; Oscar H. Cleveland, Tenn.; Mrs. Duff Rayburn, Ill.; Mrs. E. E. Cone and Ruth and Edwin Cone, Chicago; Mrs. J. A. Hockett, Kans.; M. Schwartz, Detroit; F. B. Vrooman, Washington, D. C.; O. L. Cochran, Jr., Tex.; F. E. Carre, Kans.; Geo. C. Arnold, R. I.; C. R. Chandler, Kans.; Irving Keck, Fla.; S. Adams, Ont.; Mrs. Harvey Miller, Philadelphia; R. S. Morton, New York City; Jas. D. Schermerhorn, Mich.; C. O. Grosshorn, Ky.; Lawrence B. Davis, Indianapolis; Mr. and Mrs. Golding, La.; Mrs. Thos. E. Kane, Ind.; Russell Hart, Mich.; F. H. Anthony, Tenn.; S. E. Garvin, and Miss Ella Page, Cincinnati; Helen R. Biggs, Ky.; Mrs. Edgar O'Flinn and Miss Mildred Hawley, Conn.; Dr. Julia W. Carpenter and Dr. Lily F. Carpenter, and Amelia M. Dombhoff and Edward S. Jerome, Cincinnati; Mrs. H. Dickenson, Kans.; Geo. J. Wittelschafer and wife, Ky.; J. H. Offner, Chicago; Mrs. W. H. Teeter, Chicago; H. M. Larrabee, Mich.; B. M. Bobb, Chicago; H. R. King, Wash.; Mrs. Jas. A. O'Dell, Ill.; Mrs. I. B. Harper, Mrs. F. W. Rood, A. E. Keepen and A. E. Keepen, Ill.; Luceen Hazel Alexander, Philadelphia; Chas. Meinenger, Jr., and wife, Cincinnati; Peter Armtruster and wife, Ill.; Dr. D. W. Fenton, Mich.; Chas. W. O'Bryan, Ark.; O. Q. Chandler, Kans.; Mrs. Inez R. Letcher, Okla.; Mrs. W. Z. Hammond, Chicago; Fred Kretschneider and wife, Mich.; K. H. Field, Calif.; Dr. J. L. Riley, Ga.; Mr. and Mrs. E. F. Driggs, N. Y.; E. H. Sebring, O.; D. F. McLain, Ga.; R. A. Melendy, M. D., Chicago; J. M. Henderson and wife, O.; Miss Lilly Peel, Chicago; H. H. Wilson, Neb.; Mrs. Katherine Morrison, Kans.; H. H. Albert, Ind.; W. H. Proctor, Mich.; Mrs. Chas. C. Wilson, Chicago; Mrs. E. B. Houston, Ark.; Geo. Barry, Mo.; Robt. Phillips, New York City; A. V. Coco, La.; P. Armbruster and wife, O.; E. L. Firudenstein, Ill.

News and Personals

O. L. Cochran, hardware merchant, of Houston, Texas, arrived a few days ago to spend a couple of weeks.

Mr. and Mrs. E. F. Driggs, of Brooklyn, N. Y., are among this week's guests. Mr. Driggs is a well-known lawyer of Brooklyn.

F. E. Carr, president of the Wellington National Bank, Wellington, Kansas, will spend a few weeks here. Mrs. Carr is here also.

C. W. O'Brien, cashier of the Arkansas National Bank, Hot Springs, Ark., arrived here last week to spend a few weeks recuperating.

W. C. Frontz, a Hughesville, Texas, banker, is here with his wife for a few weeks' sojourn in search of health. Mr. and Mrs. Frontz have been here before.

G. H. Corsan, the famous swimming instructor, is again at the Sanitarium for several days, and during his stay will give a public exhibition.

Dr. B. E. Witte, of San Antonio, Texas, is registered on the list of practicing physicians now at the Sanitarium undergoing treatment. This is not Doctor Witte's first visit.

Mr. Irving Keck, a prominent citizen of Bowling Green, Fla., and a staunch friend of the Sanitarium and its teachings, is with us for a few days, and is warmly welcomed by his many friends.

Among the later arrivals this week at the Sanitarium were F. A. Locke, hardware merchant, of Ashtown, Ark., and Leslie Lamb, cashier of the First National Bank, Petersburg, Ind. Mrs. Lamb is here also.

For a few weeks' visit in search of health, C. Q. Chandler, a prominent banker of Wichita, Kansas, arrived the other day. Mr. Chandler is greatly impressed with the Battle Creek Sanitarium and its system.

Judge J. C. Wood, of Haynesville, Ala., accompanied by Mrs. Wood, arrived a few days ago to spend a couple of weeks. These friends are well known at the Sanitarium, as they frequently drop in for a few days' sojourn with us.

C. L. Stone, president of the Manila Street Railway Company, Manila, is spending a few weeks with us. Mr. Stone greatly approves of the Battle Creek Sanitarium and the Battle Creek Sanitarium system so far as he already knows of it.

A large number of guests at the Sanitarium took advantage of Labor Day to visit Detroit, Jackson, Kalamazoo and other points of interest in this section of the middle West. Labor Day was celebrated without much ado in Battle Creek.

F. B. Vrooman, of New York City, a lecturer in Oxford University, is among this week's prominent guests for recuperation. Mr. Vrooman was referred to the Battle Creek Sanitarium by General John Black, president of the United States Civil Service Commission, at Washington.

Drs. Julia W. and Lily F. Carpenter, of Cincinnati, are at the Sanitarium once more. For several years we have had the privilege of welcoming these ladies, who are engaged in a very successful medical work in their home city. They show a kindly and intelligent appreciation of the work of the Sanitarium.

Among the guests this week are W. B. Anderson, retired banker, Clarksville, Tenn.; O. H. Cleveland, lumber manufacturer, Memphis, Tenn.; Rev. E. R. Langworthy, Spring Valley, Minn.; E. L. Trendenstein, merchant, Clinton, Ill.; C. W. O'Bryan, banker, Hot

Springs, Ark.; D. F. McLean, merchant, Dawson, Ga.; H. H. Wilson, attorney, Lincoln, Neb.

There was an interesting exhibition of water athletics last Friday afternoon. The participants in the various contests were members of the Sanitarium family and showed remarkable proficiency in all the various forms of swimming, diving, and other aquatic sports. There was a large attendance, as patients and guests always enjoy these exhibitions.

Day by day the Texas gathering at the Battle Creek Sanitarium is becoming numerically greater. Hardly a day passes but there are additions to the big family from the Lone Star State. On Sunday afternoon over fifty Texans met in the main parlor and had a group photograph taken. A second group photograph was taken of Houston people alone. There were twenty-two in the latter picture.

Dr. R. A. Hardie and family, of Seoul, Korea, have been with us for the most of the summer, they being on their furlough after many years of missionary service in that country. The health of Doctor Hardie and several members of his family was much impaired when they arrived, but we are happy to state that they went away very much benefited, and apparently well on the road to a full recovery of health and strength.

Rev. A. A. Geiger, one of the Marshall pastors, occupied the Sanitarium pulpit on last Sabbath morning, giving a most helpful discourse. The afternoon service consisted of a lecture by Dr. Geo. Thomason, lately returned from South Africa. The lecture was beautifully illustrated by stereopticon views taken by the doctor in his travels through the country. The large audience was delighted and instructed by the presentation.

The annual compilation of deaths and injuries from the insane Fourth has just been completed by the *Journal of the American Medical Association* for the 1911 holiday. It shows a remarkable decrease both in the number of fatalities and casualties. But fifty-seven deaths are reported, as against 466 in 1903, and 131 in 1910, or the eight-year average of over 200. The number of accidents has also decreased from 5,600 in 1908, the highest, to 1,603 this year. The *Journal* puts it strikingly when it says that in nine years thirty-seven regiments have been killed or disabled in the celebration of Independence Day. The injured number 37,410, and those killed 1,715. Happily the annual sacrifice of lives, limbs, eyes and fingers is disappearing before a saner patriotism.

John D. McCartney, editor and proprietor of the *Tribune-Herald*, of Rome, Ga., has been at the Sanitarium for the past few weeks resting and taking observations. While here he took the opportunity to write for his paper some articles in which he gives to the many readers of that popular daily a de-

tailed account of what he saw and experienced at the Sanitarium. These articles form very interesting reading as coming from a shrewd, wideawake, and intelligent critic viewing things from the layman's point of view. Mr. McCartney learned highly to approve of the methods and principles under which the Sanitarium carries forward its work. He was obliged to leave us for his home on account of the calls of business, but left his wife to still enjoy the benefits of the diet and treatments, and the delightful associations to be found here. We hope to be able next week to give place to one of the articles mentioned, as our own readers will surely be interested in what a man of such standing has to say.

It is interesting and remarkable to note how great reforms often have their origin in a manner that does not attract general notice, and many have been the heroes who have stood on the firing line all alone and unnoticed. Mrs. William Redd, of Birmingham, Ala., a warm friend of the Sanitarium, relates the very interesting circumstance of a small water-cure establishment being maintained in Britten, Ga., as early as 1850, by a doctor named Irvine, of Irish origin. In this little institution hydrotherapy was practiced after the fashion of the cold-water cure, without many of the conveniences and appliances now in use. Mrs. Redd well remembers receiving the treatments while a child, and her brother was treated by Doctor Irvine for measles in the most approved water-cure fashion by the wet-sheet pack, bringing the eruption out most fully. In the matter of diet, too, Doctor Irvine was very strict, adhering to the vegetarian regime, and his success in his practice was very remarkable. Mrs. Redd's parents became disciples of the new system, and she has followed it all her subsequent life, evidently much to her own benefit.

The Cleveland City Council gives formal approval to the plan of the health department of that city to call a conference of sanitary officers of all cities along the Great Lakes for the purpose of discussing the problem of sewage disposal. The problem is one which no one city can handle alone with satisfactory results. It ought to be studied in its broader aspect by all those whose interests are at stake. It might be simple, comparatively, for Cleveland to throw her sewage into the lake in such a way as not to impair the purity of her own water supply; but Buffalo would still protest. Cleveland is downstream from Detroit and Toledo, and the people of Cleveland are more concerned in what those cities do with their refuse than they are. Cleveland in this matter assumes leadership in a movement of very great significance. The effort is one to preserve the public health, which is the most important of all conservation issues. Battle Creek has in this regard the advantage of cities situated along the Great Lakes or navigable streams. Battle Creek is considered the most healthy city, so far as the city itself is concerned, in Michigan, or even the middle West. Patients at the Sanitarium do not drink contaminated water. The water used here comes from artesian wells and is absolutely pure.

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Vibrotherapy a Medical Aid

**Mechanical Manipulations as Employed by
the Battle Creek Sanitarium**

A VISIT to the Mechanico-Swedish department of the Sanitarium is both interesting and instructive. The department is one of the most effectual in remedying the condi-

TAKEN FROM THE QUESTION BOX

**Sundry Queries Propounded by Patients,
with Ready Responses by the San-
itarium Superintendent**

QUESTION. What do you think of taking
buttermilk between meals?

ANSWER. Take yogurt whey, but I would

Your House is on Fire

**Such is the Case of Every Victim of
Chronic Disease—He Never Can Be
Fully Restored—A Lecture
by Doctor Kellogg**

A PERSON suffering from chronic disease
may be likened to a house on fire. We may



SANITARIUM NURSES DINING

tions and rectifying the errors of ordinary life that seriously interfere with health. For fully thirty years this means has been in use here, starting in an elementary way, and gradually leading out with new inventions, most of which originated in the institution, and were the products of a demand created
(Continued on page two)

not take buttermilk, because buttermilk will tax the stomach.

Q. Outline a diet for a person with both high acidity and autointoxication.

A. Those two things generally go together. The poisons are absorbed from the colon, ex-
(Continued on page five)

have a fire in the house, or we may have the house on fire. For instance, a kerosene oil lamp tips over, the oil runs out and gets on fire; that is a fire in the house. Throw the lamp out of the house, and the house will be all right. But there is another sort of fire. Something goes wrong with a furnace pipe away down in the basement, and the fire gets

Original from

UNIVERSITY OF MICHIGAN

into the partitions, creeps slowly up through to the roof of the house, and by and by your neighbor shouts to you, "Your house is afire!" You run out into the street, and sure enough, you can see the flames bursting out through the roof. The house has been burning a long time, but it has been slowly burning up through the partitions, and now it has burst out through the roof, and everybody, as well as yourself, knows that your home is on fire. That is what is true of chronic disease.

When a person gets

Albumen in the Urine,

it means the fire has been burning a long time, and the flames are bursting out through the upper story windows. When a person gets cirrhotic liver, gets great sallow blotches on his face and hands and circles around his eyes, and a dry, hard skin, that means his house has been burning a long time, and there is general disorder throughout the body. When the arteries are hardened and the blood-pressure is up to 180 or 200 degrees, that means the house has been burning a long time, and the flames are now bursting out through the upper stories, and the whole house is likely to perish. It certainly would indicate that something ought to be done right away.

I wish that I could so appeal to persons suffering from chronic disease that they would understand the importance of doing something for themselves. The average business man has been educated to look after his business.

His Business is His God.

He lives and he sleeps with his business, he dreams about his business. The whole object of his life is to succeed in business. "Getting on in the world" is supposed to be the great end of life. Boys and girls are taught how to get ahead of somebody else, how to get to the head of the line. That is the thing that most people are striving for; and so when it comes to the matter of health, it is hard to divert attention from these things that have been occupying the mind so exclusively.

Men work when they are weary, work when they ought to sleep, when they ought to be giving attention to their bodies, when they are hungry, and the body is so habitually neglected that by and by when it becomes necessary to do something, it is hard to become reconciled to the idea that they must make a serious business of it.

The average sick man imagines that he can

Run Away to a Mineral Spring

somewhere and spend a week or two, and he will be all right. I knew a man some time ago who was abusing his stomach in the most outrageous fashion. A friend spoke to him, and he said, "I don't care what I do to my stomach, because I know a doctor who has a medicine that will cure any stomach, no matter what is the trouble with it. So when my stomach gives out, I am going to Doctor Jones, for he has the medicine that will knock out any kind of stomach trouble."

I know people, a thousand miles from here, perhaps, that are saying to themselves, "I am not afraid to drink whiskey, because if ever it gets the better of me, and I get where I can't stop,—I can stop any time I want to,

but if I get where I can't stop, I am going down to the Keeley Institute and get cured." Many people are deceived by that. I believe quite a number of people are saying to themselves, "If I ever get really sick, I am going to Battle Creek, and they will cure me." They say, "Why, I knew a man who was just about dead, hardly alive, and he went there and got well, and I am sure I can go there before I get so bad as that."

My friends, that is

A Very Serious Mistake.

It is a great mistake to suppose that one can be fully restored after the ravages of chronic disease. That man who had come here on the brink of the grave and was cured, was only apparently sound; he was not cured at all. He just had a few more years to live, but he was better, he was helped out of his immediate emergency, but he was a long way from being cured.

Here is a man who has pernicious anemia, for example, and his blood has gone down to fifteen, and he has been in that condition for perhaps two or three years. That man can never be actually cured. We may be able to get his blood up, and may help him to live some years; but he has lost many years of life which can never be restored to him. A man suffering from chronic disease, as I said before, is like a house that is afire; the house itself is burning, and every moment some portion of the house is being consumed; expensive carvings are being burned up, perhaps, some very lovely work of art is being consumed in the house. It is exactly so with the body. This damage may be just reaching some delicate part of the brain, or may just be reaching the heart, may be just getting to the vital part of the liver or the kidneys; it may be just attacking the blood-vessels and creeping along some blood-vessel which supplies some special part of the brain.

For instance, there is a blood-vessel that supplies that part of the brain where the gift of language, the memory of words, is located, and it may be that degeneration is working along that particular blood-vessel, and it may be it has reached within a fraction of an inch of that particular little convolution of the brain, and if it stops right there the gift of language will not be destroyed. If it goes on that other quarter of an inch, into that convolution where that precious gift is stored, that is the end of language;

Memory is Gone.

I met a man some time ago who really could hardly remember his own name. We had a lady here some time ago whose blood-vessels had become degenerated in that way, and she could not remember the name of the State she came from. She had lived in that State twenty years, and yet could not tell the name of it, because that part of the brain had been damaged.

I do not suppose there is a person in this audience in whom the disease could not be arrested, and to a very considerable degree repair secured; but every person that has chronic disease must know that a perfect cure is absolutely impossible. I am saying this because I want to impress upon your minds the importance of doing, when you go

home, just what you are taught to do here. If you had a diet marked out for you when you came here, then when you go home stick to it; do not go back to beefsteak, fried chicken, bacon, and all those things which have contributed to your trouble. Turn from them as you would avoid any other source of serious danger, for it is a dangerous thing to tamper with disease.

VIBROTHERAPY A MEDICAL AID

(Continued from page one)

by experience. At the present time the apparatus would seem to be complete and most exceedingly well adapted to its intended uses.

It was found that many forms of passive exercise could be administered by machinery far better than by hand. This is particularly true of the vibratory movements. The rapid, prolonged, steady movements administered by machinery can not be approximated by manual manipulation. Certain kneading and percussion effects are also produced by machinery much more effectually than is possible by hand.

Vibrotherapy is Not a Strange Term

to the American public, though it is of comparatively recent origin. It has been exploited in various ways by ignorant adventurers more anxious to make money than to do anything else. Vibrotherapy in scientific hands, intelligently applied, is a most useful adjunct to the healing art. It supplements the other means employed at the Sanitarium very powerfully. Its effects upon the nervous, the muscular, and the digestive systems are very marked.

The visitor to this department finds himself in a room about eighty by one hundred feet square, divided through the middle, the apparatus being duplicated on each side of the partition for the use of the men and women. Here is a long row of tables each fitted with a set of kneaders working with a cam movement alternately, for the purpose of systematically kneading the bowels and stomach. The top of the table moves longitudinally back and forth, and the patient lies with face down upon the table while his abdominal viscera is passed back and forth with a gentle motion over the kneaders. One table is fitted with cams having a less pronounced movement for kneading the kidneys. These devices aid the peristaltic action of the bowels and promote the activity of the digestive and excretory organs.

In other parts of the room are situated tables, chairs and stools on which the patient rests, to which a gentle and very rapid vibratory motion is given, amounting to nothing more violent than a very perceptible tremble, but which imparts to the body a sensible and pleasing thrill, so that one is apt to believe that there is an electric current present in the treatment. But he is assured that the only electricity about it is the current that runs the little dynamo that operates the machinery.

One machine operates vibrating stirrups or rests in which the patient places his feet, with the result that the blood is sent rapidly coursing through the legs and feet, giving them a peculiar sense of rest, warmth and

comfort to which many feet and limbs have long been strangers.

Another device for

Stirring Up the Abdominal Organs

to effectiveness is a machine that operates a wide canvas strap that is passed around the abdomen or the back of the patient and is gently but rapidly pulled back and forth by alternating cranks to which the ends of the belt are attached. Another machine is a forcible reminder of mother's slipper, for a wide leather strap is fastened to a revolving shaft and the patient stands with his legs and body within easy range of the strap, which revolves with sufficient force to carry him back in memory to his mischievous days and his mother's knees. The straps are moved up and down the legs and body, and the action results in bringing out a red glow of fresh circulation into the skin. The slapping is after all very mild and not of a painful nature, as the motion of the shaft is under control and adapted to the patient's comfort, though the effect is most excellent.

The devices that have been mentioned form only a part of the outfit of this unique department that is operated by skilled attendants, and the treatments are always directed by prescription from the physician in charge of the patient. Thus sluggish livers, torpid kidneys, and inactive stomachs and intestines and unequal circulation are stirred up to active and effective work by means which are perfectly legitimate. It is like lending a good strong boost to a load that the poor horse is hardly able to draw. It leaves no evil effects as is the case with so many of the patent nostrums that are taken for the purpose of stimulating the body into unnatural action while they afford no help, and act the same part that a whip acts to a horse already tired out. These measures, on the other hand, render kindly and timely assistance to tired nature.

AN EDITOR'S OPINION

AN editor and proprietor of a leading daily of one of the Southern cities, while spending a few weeks at the Battle Creek Sanitarium, wrote to his paper some of the impressions he gained while here. From the paper we take the following article in which the results of the gentleman's observations are plainly and intelligently set forth:

"Those of us who have straight backs, good digestion, sound stomachs, and the other equipment of the normal man, are apt to underrate the blessing of good health—to take it too much as a matter of course—while to those who have lost their health it immediately becomes a matter of supreme importance; something to be regained, no matter what the cost of money, time or endeavor.

"These folks up here have about made an

Amateur Medical Missionary

(of the home variety, of course) out of me. In future the *Tribune-Herald* is going to have more to say about how to stay well—if not more about how to get well after you get sick.

"By some people the Battle Creek system is regarded as freakish, largely, no doubt, because it insists upon a vegetable diet. It

does seem strange that nine-tenths of the world has for ages clung, and still is clinging, to an error in its habits of food—if meat-eating be an error. Personally, I have not yet been convinced that meat-eating is unwise. But aside from that feature, it must be said that the Sanitarium system, so far from being freakish, is a thoroughly modern, scientific, and sensible plan of health culture.

"There is No Secret About It."

One of the things that pleases me here is the fact that everything is open and above board. For that matter, the medical profession everywhere, as it has donned the armor of science has cast aside the cloak of secrecy. The problem of the Indian medicine man, the hoo-doo doctor, the quack, was how to mystify. The old-time reputable practitioner, even, did not take his patient into his confi-

and diet are the most important measures in reconstructing the tissues of the body.

"A Diagnosis of the Ailment

is not made by guesswork, but by means of a series of examinations, consisting of analysis of the blood, determination of blood-pressure, examination of stomach contents, feces, and urine, and so on, calling in the X-ray if necessary. One very interesting examination is the strength test, which shows the power of each group of muscles and the body as a whole. After the strength test is made, exercises to develop the deficiencies are prescribed.

"The physician at the Sanitarium makes out a daily program for the patient that fills all his waking hours. It starts at 6 A. M. and ends at 9 P. M. It combines the remedial agents of fresh air, good food, baths and exercise, and rest.



THE VIBRATORY CHAIR

dence. A relic of this habit is the Latin prescription. But now medical societies are pondering how to obtain publicity, and how to make the public understand methods of hygiene, sanitation, etc.

"At this Sanitarium the patients are shown the results of every examination. They are told where they are weak, and why. They are

Encouraged to Ask Questions.

Two daily lectures are given on health topics, with all the high-sounding words cut out, so the hearers can understand what the doctor is talking about.

"In these days when prophets of healing galore advocate measures of a thousand different kinds, it will do no harm to set forth in brief one plan based on common sense.

"The fundamental idea of the Battle Creek system is that nature alone can cure. The power that operates through nature creates and maintains; that power must therefore be able to cure. The healing power is in the blood; that is, the blood repairs the damage done by the wear and tear of life.

"Physicians and remedies aid in removing the cause of disease and in supplying favorable conditions. Fresh air, baths, exercise,

"The Sanitarium Bill of Fare

excludes meats, animal fats, mustard, pepper, spices, tea and coffee, cheese, pickles, ice cream, baking-powder breads, and a host of other things of like character believed to be unwholesome, indigestible or productive of disease.

"In their stead the institution provides a fruit, vegetable and cereal diet, with the advice to thoroughly chew, fletcherize, call it what you will, but grind it up before you swallow it.

"The patient is told to live outdoors, sleep outdoors, swim, walk, and be cheerful. They preach the doctrine of optimism in a good, whole-hearted way. The people connected with the institution are cheerful and confident themselves. They tell you to dismiss fear, leave worry behind, and believe that the power which made you can heal you.

"Sounds like a sensible program, doesn't it? Most anybody could follow it anywhere. It is having wonderful results on these people here, and seems to be 'delivering the goods.'

"J. D. McC.

"P. S.—Tell the cigar store men to go into mourning over the loss of a good customer."

HEARD IN THE SANITARIUM LOBBY

Words of appreciation are not only a source of encouragement to physicians and other workers, but they do far greater good in imparting to others who are unacquainted with the Sanitarium and its ways and work a correct impression of the same. The Sanitarium is not managed on a commercial basis; no individual shares in any possible financial gain; the object before the managers is to reach as many sufferers as possible, with the hope of affording them the relief to be had in the things that are provided here. Our reporter during the past week caught the following remarks from appreciative patrons:

DR. C. E. BENNETT, Pensacola, Fla.: "I think so much of the Battle Creek Sanitarium

upon. The food is good. It is better than that—it is the best. If the people of this world could only awaken to the harm that meat is doing them, they surely would abhor it. Some people have an idea this food here is hardly edible, let alone relishable. But that is just where they make the mistake of their lives. There couldn't be better food than this vegetarian diet that is given to the patients and guests of this institution, which I call the greatest of its kind in the world."

G. A. SPIER, retired banker and capitalist, of Atlanta, Ga.: "Reiterate statements made by others in your 'chats' of preceding weeks, and you have just where I stand in regard to the Battle Creek Sanitarium. I think that great is not a strong enough word to use. I have been to other sanitariums, and this is my first visit here, but am so favorably im-

benefit that I decided to come myself this year. I have every reason to say a good word always for the Battle Creek Sanitarium and the Battle Creek Sanitarium system. Too much can not be said for them."

FRANK NEFF, superintendent of the case department of the Star Piano Company, Richmond, Ind.: "A fine place to come, all right. We all feel greatly benefited since we came, and I especially. We could not wish for more courteous treatment at the hands of doctors, officials, and others. Everybody is pleasantly inclined, and altogether we like it very much."

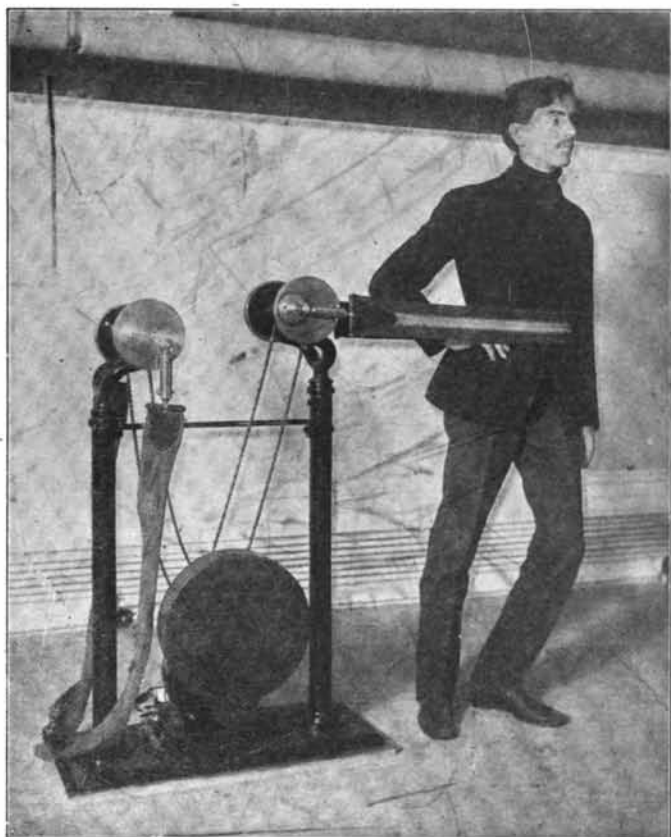
DR. R. S. MORTON, New York City: "I can not say too much for the Battle Creek Sanitarium and its methods. The appointments could not be better, and the food is excellent. One would naturally expect that in so large an institution of this kind one would find the atmosphere of the hospital. I expected it. But what a surprise was in store for me! There don't seem to be any sick people about. Why is it? Because every sick person in this institution to-day is trying to help the other fellow to health again. It is a wonderful institution, and one which has greatly changed the beliefs of a great many practitioners in the world to-day."

S. B. NACE, president of the Columbus Bank Note Company, Columbus, Ohio: "This is by no means my first visit to the Battle Creek Sanitarium. When I was here before, I liked the place and environment so well that I am back again, as you see. While I have been here but a few days this time, I am beginning to feel like my old self right away. This cure is wonderful. I know from experience just what the Battle Creek Sanitarium treatments can do, and I sincerely hope that hundreds of other sick people will soon learn of the health-giving powers of the Sanitarium principles."

J. H. CROSBY, prominent jeweler, Jacksonville, Fla.: "The Battle Creek Sanitarium is the place for me every time. I have been here before, and I hope to come again. I have not been here long this time, but am more like myself to-day than I have been in six months back. Wonderful place. Too good to express in words. My heart is right with every move made at the Battle Creek Sanitarium."

S. C. ALEXANDER, president of the People's Savings Bank & Trust Company, Pine Bluff, Ark.: "So many people from Pine Bluff were singing the praises of the Battle Creek Sanitarium that I decided I would better investigate and find whether all the statements they made about this being such a curative place were true or not. They are true, all right. I am satisfied of that. Since coming here I have received great benefit, and things have been even better than they were described to me."

JEFFERSON CHANDLER, prominent attorney of Los Angeles, Cal.: "I am a thorough believer in the health-dealing powers of this greatest of great institutions of its kind. In my opinion this is the gateway to health. This is my first visit here, and I have been pleasantly surprised. I by no means ex-



THE VIBRATING BELT

that this is my second visit this summer. There is something about the institution and its environment that is fascinating, and my belief is that if the patients will only follow the advice of the doctors and not think they know it all themselves, there is no reason under the sun why the Sanitarium treatments will not cure them. That is my candid opinion. It is a wonderful institution and I wish it every success."

PROF. PAUL NYSSSENS, teacher of physical and mental development in one of the largest colleges in Brussels, Belgium, who is now a guest at the Sanitarium, said: "I am strictly a vegetarian and therefore think the diet and foods of this institution can not be improved

pressed with the results since I have been here that I hope to come every year."

JUDGE G. W. SARGENT, Wichita, Kansas: "When I say that I believe this to be the greatest institution of its kind in the world to-day, I mean every word I say. The treatments are such as meet the requirements of all. I surely have been greatly benefited in the short time that I have been here, and I can not see why others who have an idea that they are incurable can not also be cured. I wish that more people knew of the benefits to be derived here."

DR. P. L. REMY, of New Iberia, La.: "My son was here six years ago and received such

tonic effect from the cold bath without the unpleasant chill of the very cold water.

Q. Are there any cures of chronic stomach trouble and inactivity of the bowels directly traceable to the Battle Creek Sanitarium system?

A. I do not think we ever cured anybody entirely; people get reasonably well so that by living right they can keep comfortably well. But a person who has a crippled stom-

ach or colon never gets entirely well. That is a thing we ought to know, and we must become reconciled to that fact. When a man has lost a limb, he can not expect that he is ever going to have another natural leg. He can get a wooden leg, perhaps, and be comfortable, but not entirely well. A man with a dislocated elbow or shoulder never has a perfectly good joint; it is always a weak joint; so a person who has a spoiled stomach can get his stomach into a suffi-

ciently good condition so he can digest good food with good care and get along comfortably, but he can never expect to be perfectly well.

Q. What makes water sour in the stomach?

A. Water stimulates the stomach to make gastric juice. A pint of water will cause the stomach to pour out gastric juice.

Q. Are canned strawberries as rich in iron as fresh berries?

A. Yes; but neither are very rich in iron. It is only the dry matter that contains a large amount of iron. Strawberries, on account of the water they contain, have only a very small amount of iron.

Q. Should yogurt tablets be taken in water or with something sweet?

A. They should always be taken with something sweet. An ounce of malt honey or ordinary honey should be taken right away afterwards, so as to feed the germs and cause them to grow and multiply.

Q. What diet and treatment should be used for bronchial asthma?

A. The antitoxic diet, hot applications to the chest, general tonic baths, the neutral bath to relieve nervousness and irritability, laxative foods, and antitoxic foods, so the bowels will move actively.

Q. My hemoglobin is 84. Would a nice, juicy beefsteak once a day increase the iron in my blood? Do you know anything better?

A. A gentleman came here a couple of years ago who had been fed on meat, and his hemoglobin was fourteen per cent instead of one hundred per cent. This gentleman stood up here in this room a few weeks ago and showed you his rosy cheeks. He was Mr. Owen, from Pine Bluff, Arkansas, and you said, "How strong and well he is"; and he has not eaten one pound of meat, or taken one particle of medicine of any sort since coming here, and he is cured. He was simply put upon the Battle Creek Sanitarium diet, and he stuck to it. We can not make blood from the blood of other animals. The ox makes its rich blood from grass and corn. The elements that make blood are found in best form in the foods which come from the vegetable kingdom.

Q. Is the use of cascara in small quantities, a quarter of a teaspoonful before a meal, injurious?

A. It is better to take just one dose at night before going to bed, but it is not a good drug to take continuously. It should be taken with malt honey or something of that sort, or three or four oranges, so as to give the bowels something to act upon. But colax is far better than any of these chemical drugs, because it is simply seaweed and absorbs moisture, gives bulk to the intestinal contents, encourages the action of the intestine mechanically instead of chemically, hence is not an irritant.

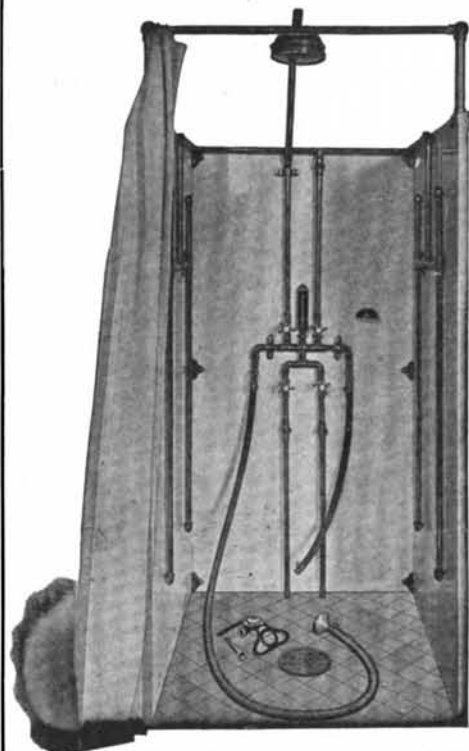
Q. Of what are malted nuts made?

A. Of malt honey and nuts.

Original from

UNIVERSITY OF MICHIGAN

"The Greatest Tonic in the World"



Q You have still to enjoy the greatest tonic in the world if you are not yet taking a cold shower—rain, needle, or spray—every morning. Nothing in all this wide world can equal it as an eye-opener, appetizer, and invigorator. It makes you all aglow with that fine feeling that life is worth living.

Q Would you pay a hundred dollars to enjoy this luxury in your own home every day for the rest of your life? It sounds incredible, but that is really all you have to invest to secure the KELLOGG HOME DOUCHE, which can be installed in your own bathroom, ready for immediate use at your own pleasure.

Q With your hand in easy control of the water valves, you can take your choice of the shower from above, the needle spray from the sides, the ascending douche from below, the jet or the spray from any position—or combine any and all to suit your royal will, at any temperature you can stand, cold or hot. Truly a royal treat, to say the least.

Q The Kellogg Home Douche gives you in a more convenient form practically the same advantages as the

celebrated Kellogg Douche Apparatus now in use everywhere in sanitariums, hospitals, treatment rooms, gymnasiums, etc. And the Home Douche dispenses with the attendant—you operate it yourself, and get as good results.

Q And if you use it daily, you may steer clear of the day when you have to go to a sanitarium to get water treatment as a cure. Get it now as a preventive—in your own home.

PRICE:

The Kellogg Home Douche Apparatus, complete with attachments for Spray, Fan, Jet, and Ascending Douches.....	\$100.00
Duck Curtain and Curtain Rod, extra.....	10.00
Three Kiln-dried Hardwood Slabs with wood basin and floor drain (the wood basin is to be filled in with cement by your mason), extra.....	35.00
Good Health, Battle Creek, Mich.: Slate Slabs, each, extra (wood slabs just as serviceable).....	15.00
Marble Slabs, each, extra	35.00

Good Health,
Battle Creek,
Mich.:

I am interested
in your Douche for the
Home—send me full par-
ticulars.

**Good Health Publishing
Company**

Battle Creek, Michigan

ARRIVALS

THE list of guests who have registered at the Battle Creek Sanitarium during the week ending September 10 is as follows: Miss Blanche Clowe, China; Mr. and Mrs. P. B. Noyes, N. Y.; Jno. Grimin, Ia.; D. C. Clark, Mich.; E. H. Hughes, Tex.; Miss Nell E. Stefel, W. Va.; Dr. Scott, S. B. Miners, and Mrs. A. M. Chevat, Mich.; Milton Cohen, Tex.; Miss B. R. Clark, Cleveland; G. B. Holmes, Mich.; C. P. Collins, Okla.; Ethel Gray, O.; V. R. Logsdon, Ia.; Mrs. S. C. LeMoyné, O.; R. D. Tuman, Ore.; Jno. E. Kepperly and wife, Indianapolis; W. Harms, Ill.; Mrs. P. Koppity, O.; C. E. Bennett, M. D., Fla.; Paul Nysseus, Belgium; H. E. Cook and M. Nelson, Mich.; Mrs. H. Silbernagel and Miss J. Silbernagel, Ark.; B. B. Becker, Tenn.; Mrs. E. L. Brownell, Ia.; P. B. Noyes, N. Y.; R. S. Greenlee, Chicago; Mrs. M. P. Morrell and Miss Helena Morly, Mich.; H. M. Price, Ind.; A. O. Gordon, Chicago; A. Kellogg, Ill.; Miss B. Boyce, Mrs. F. M. Childs, Mich.; Mrs. T. H. Bell, Miss Sarah E. Bell, and Messrs. John and Hugh Bell, Ga.; F. L. Casebeer, Pa.; Mrs. B. F. Bailey, City; J. H. Crosby and wife, Fla.; Mrs. F. Stone and Miss Mary Nelson, Mich.; E. G. Patterson, China; A. F. Thomas, Man.; A. T. Wooden, Okla.; Mrs. W. K. Maxwell and Mrs. F. H. Snyder, Kans.; J. H. Wood, Wis.; H. R. Culvertson, Ind.; Miss Hurd, New York City; Thomas Strain, Calif.; Miss Georgia Munroe, Canal Zone; Mrs. D. Harrigan and Alice J. Harrigan, Mich.; Rose Gennett and T. J. Campbell, Ind.; Mrs. J. Y. Hutchinson, Tenn.; Rev. L. C. Randolph, Wis.; Mrs. H. S. Blossom and Louise Blossom, Cleveland; Douglas Green, New York City; Thornton W. Sargent, Kans.; H. W. Hoob, Chicago; J. F. Saunders, Mrs. Belle V. Sash, and Mrs. Myra Todd, Ind.; Mrs. F. C. Kile and daughter, Mont.; Lelia A. Garvin, Cincinnati; Mrs. Altha Lonier, Mich.; Frank Stutz, Mich.; Ed. E. Levy, O.; W. W. McDonald, Mich.; Wm. Burtless, Mich.; Chas. Baer and wife, Neb.; Harper Reed, Mich.; H. C. Tyrrell, Okla.; L. R. Root, Chicago; Mrs. S. H. Busey, Mrs. Ozias Riley, Geo. R. Stranton, and S. M. Anderson, Ill.; Rev. Wm. S. Jerome, Mich.; H. J. Phelps and wife, Detroit; J. H. Kingman, Mich.; Mrs. J. Aiman, Miss R. Johnson, Hugh Daly, and Ella Daly, Chicago; Clara A. Dole, O.; Hubert Berghoff, Ind.; Sarah Anderson, Ill.; G. H. Corsan, Toronto; Mrs. H. B. Wilkins, Tenn.; Mrs. W. A. Bird, Ala.; Miss M. L. Dellenbaugh, O.; Earle H. Reynolds, Chicago; Roy W. Conover, Cincinnati; Frank J. Neff and wife, Ind.; Mrs. C. Shirkert, Mo.; Edwin S. Craig, Pittsburg; M. Schwartz, Detroit; J. W. Sloneker, O.; H. L. Munn, Ia.; B. W. Keepstein and wife, and Miss Olive Keepstein, Tex.; Mrs. S. C. Venable and Louise, N. Y.; J. C. Dawson and wife, Ind.; Mrs. C. J. Potter, Grand Rapids; Miss Josephine Suhler, Philadelphia; Mrs. Jno. Bertine, Mo.; Anna Berlin, Chicago; J. A. Dunn, City; E. H. Bancroft, Ark.; S. R. Leonard, N. Y.; L. H. Marsland, Mich.; H. S. Milton, Va.; Mrs. S. S. McClure, New York City; Dr. and Mrs. M. O. Ferry, and Marta Olsen, N. Y.; Agnes Carpenter, Miss; W. G. Lenderson, Chicago;

Fred S. Ball and wife, Ala.; Mrs. M. W. Smith, Ill.; Mrs. A. N. DeMerril, Mo.; Lilly D. Greene, India; Mrs. C. D. Moore and Hugo Dalmar, Chicago; Geo. A. Lawrence, Ill.; Jas. Boyd and wife, Tex.; C. M. Roser and wife, Fla.; P. L. Renny, La.; Jno. A. Hess, W. Va.; C. D. Warner, Mich.; Mrs. T. R. Roath and Mrs. Jas. D. Grant, La.; Miss Jennie D. Raworth, Miss.; W. J. Palms, La.; Burt Cobb, Boston; L. S. Luton, Detroit; H. D. Goodenough, S. Africa; W. A. Wilboldt and R. C. Wilboldt, Chicago; Paul E. Oreweiler, O.; Jefferson Chandler, Los Angeles; Arnold L. Gesell and wife, Conn.; Homer B. Snyder, Colo.; Juliet S. Godenow, Kalamazoo; Dr. H. I. Chamberlain and wife, O.; Mrs. J. H. Robertson and Misses Margaret and Sue Robertson, Tex.; Mrs. H. G. Marvin, Mich.; Henry E. Chase, Grand Rapids; Luke Lillery, Cincinnati; E. T. Moore, O.; Miss Anna J. Skinner, O.; Robert Phillips, New York City; L. B. Harrigan, Kalamazoo; W. S. Guthrie, Okla.; Miss Frances M. Burnes, Minneapolis; Doctor and Mrs. Rawdybush, Ill.; Mrs. A. P. Tenison and Miss Lenn Tenison, and Mrs. L. H. Combes, Tex.; A. F. McMillan and wife, Chicago; Mrs. Mary Sherman, City; Mrs. M. McNally, Chicago; J. F. Walton and wife, and Miss Helen, Mich.; B. F. Schoenberg, Chicago; Edith D. Goodenough, S. Africa; Geo. W. Lyle, Tenn.; G. G. Liebhardt, Denver; Lou F. Schruher, Mo.; H. C. Haymond, Detroit; J. H. Ford, Mich.; K. H. Field, Calif.; W. T. Field, N. Y.

S. B. Miners, county clerk of Berrien county, Mich., and of St. Joseph, Mich., is here with his wife to spend a couple of weeks. This is their first visit and they are very much impressed with the Battle Creek Sanitarium and its system.

Dr. M. Belle Brown, one of America's most widely known lady practitioners, and ex-Dean of the New York Woman's Medical College, New York City, in which institution she was a professor for twenty-seven years, is a patient here now, and is making fine progress.

Among the medical practitioners to be added to the lists of guests and patients during the past week were Dr. R. S. Morton, New York City; Dr. P. L. Remy, New Iberia, La.; Dr. C. E. Bennett, Pensacola, Fla.; Dr. Caroline L. Morrell, St. Louis, Mo.; Drs. Julia and Lily Carpenter, Cincinnati, Ohio.

Among some of the prominent women in search of health at the institution now for a few weeks' stay are Miss Clara A. Dole, teacher in the Brewer Normal School, Greenwood, S. C.; Mrs. Sarah M. Anderson, mother of Dr. J. C. Anderson, Hanley, New

News and Personals

Mrs. S. S. McClure, of New York, is again with us for a sojourn of a few weeks.

Dr. John L. Riley, a prominent practitioner of Hamilton, Ga., arrived at the institution a few days ago in search of better health.

Charles Baer, a well-known merchant of York, Neb., with his wife and son, Walter C. Baer, are among this week's guests. They expect to spend a few weeks here.

Dr. Paul Roth, of the Sanitarium laboratory department, has gone to Boston for a few weeks' work in the chemistry of nutrition in the Carnegie Institute with Professor Benedict, the great food expert.

Rev. H. D. Goodenough, from South Africa, is among the most recent arrivals in search of recuperation. The reverend gentleman asserts that he was led to come by what he heard of the Battle Creek Sanitarium while in South Africa.

There was a swimming exhibition given in the men's swimming pool last week, at which some fine work in the swimming art was done by Prof. G. H. Corsan and Mr. Chas. Haylock. These exhibitions always draw a large attendance of spectators.

Sanitarium Postcards

A series of beautiful illustrations of familiar features and scenes about the Sanitarium, taken by our own artist. Select from the following list. Prices, two for five cents, one dozen for twenty-five cents, sent to any address. Order of the Sanitarium, Battle Creek, Mich. They may be ordered either by number or title.

- 1 Bird's-eye View Sanitarium.
- 2 Sanitarium in Winter.
- 3 Gents' Bath.
- 4 Gymnastic Drill.
- 5 A Winter Night Scene.
- 6 A Winter Night Scene.
- 7 The Front Entrance.
- 8 Receiving Physician's Office.
- 9 Phototherapy Department.
- 10 Blood-Test Laboratory.
- 11 Ladies' Bath-room.
- 12 Vegetable Greenhouse.
- 13 Corner in Gastric Laboratory.
- 14 X-Ray Laboratory.
- 15 Gymnasium.
- 16 Front Entrance of the Sanitarium.
- 17 Main Building from the College.
- 18 East Hall.
- 19 Palm Garden.
- 20 In the Greenhouse.
- 21 The Main Parlor.
- 22 The Main Dining-room.
- 23 West Hall.
- 24 Northern View of Sanitarium.
- 25 Cooking School.
- 26 Nurses at Chapel Exercises Easter Morning.
- 27 Universal Strength Test.
- 28 Breathing Exercises.
- 29 Breathing Exercises.
- 30 Breathing Exercises.
- 31 Breathing Exercises.
- 32 The Kitchen.
- 33 Palm Garden Pharmacy.
- 34 Lady Nurses' Dormitory.
- 35 Bath-room Treatments.
- 36 College Building.
- 37 View of the Rear Lawn.
- 38 View from Front Entrance.
- 39 Southern View of Sanitarium.
- 40 Ladies' Indoor Swimming Pool.
- 41 Nurses' Graduating Class, 1910.
- 42 Gymnasium and Bath-rooms.
- 43 Nurses' Graduating Class, 1911.
- 44 Main Building (from College Lawn).
- 101 Sanitarium Annex.
- 102 Sanitarium Annex, from South Lawn.
- 103 The Annex, South Lawn.
- 104 Sanitarium Annex, from Southeast Lawn.
- 105 Sanitarium Annex, North View.
- 106 Sanitarium Annex, Southeast View.

Mexico, of Park Ridge, Ill.; Mrs. Minnie Lass, sister to Dr. B. E. Witte, San Antonio.

Typhoid fever is still ominously on the increase in New York, four times the normal average having been reported last week. The typhoid in Manhattan and the other boroughs has been attributed to milk, but there is uncertainty as to the cause of the increase in the Bronx. What is supposed to be the vacation season is not usually the hardest worked time of the year for officers of the health department having to deal with epidemic diseases.

Rev. L. C. Randolph, a talented minister from Milton, Wis., preached in the Sanitarium chapel last Sabbath, giving a most helpful discourse. The music was also very pleasing, and contributed much to the season of worship. The quartet that leads the music in the chapel consists of Miss Mary Ross, soprano; Mrs. A. G. Hartom, contralto; Mr. Irving Steinel, baritone; and Mr. W. A. Woolley, tenor—all singers of culture and talent.

Dispatches tell us that sixty persons were recently seriously ill in Chicago from ptomaine poisoning caused by eating cold-storage chicken at a wedding feast. The dealer who sold the fowls is a respectable man, and was unacquainted with the condition of his meat, so escapes prosecution. The principal blame must lie upon the victims, of whom it can only be said that they ought to have known better. There is a safe and sane way to avoid all danger from such sources—let the flesh-pots alone.

Mr. P. B. Noyes and Mrs. Noyes, of Kenwood, N. Y., arrived at the Sanitarium last week. Mr. Noyes is president and general manager of the celebrated "Oneida Community," formerly a religious community having all things in common. But since the demise of the founders the enterprise has assumed a commercial form and character, and is carried on for business purely. It is celebrated for its many lines of manufacture and is prosperous in them, depending upon a well-established reputation for honest work.

At the regular meeting of the Calhoun County Medical Society, held last week at Marshall, Mich., Dr. J. T. Case, in charge of the X-ray department of the Battle Creek Sanitarium, gave a lecture on "X-Ray Treatment." Doctor Case has spared neither pains nor expense in obtaining the very latest and most advanced discoveries in this recent science and powerful adjunct to medical work. The outfit now installed in the Sanitarium is one of the most complete and up-to-the-times to be found anywhere. Doctor Case's remarks elicited unusual interest.

Dr. Carolyn Geisel, the representative of the Battle Creek Sanitarium principles on the Chautauqua platform, has returned to the Sanitarium for a few days' rest after an

arduous summer campaign in which she has attended a large number of assemblies. Next week we shall be able to present a more extended notice of her work for the past season. On next Sabbath afternoon Doctor Geisel will address the Sanitarium family in the parlor on "That Spot on the Brain." We shall expect to see a large number at the meeting, as the opportunity of hearing Doctor Geisel is one our people covet.

A stereopticon lecture on India was given in the parlor on Sabbath afternoon, in the course of which the country and its people were described in an interesting manner, and the ancient and modern buildings were shown on the screen. India is evidently a land in which the extremes of poverty and riches are found side by side. The speaker stated that, occupying less than one-thirtieth of the earth's surface, India contained one-fifth of all the people on the globe. Depending entirely upon its own products for food, the land is taxed to the utmost, and millions of people live upon the border of starvation even in ordinary times.

On the evening of the 20th inst. the dining-room of the Sanitarium Annex will be occupied by the Trades and Labor Association with a banquet. This Association is a labor organization which does not approve of strikes, lockouts, or boycotts. Its aim is to bring the employer and the employee together on terms of mutual interest and common ground. The manufacturers and laborers of the city will unite in this banquet, and the theme of the occasion will be "Industrial Peace." Prominent speakers from different cities of Michigan will be there on both sides of the question, and matters of mutual interest to each party will be discussed.

On last Tuesday evening the Sanitarium family was favored with a most instructive and attractive lecture on "The Land of the Pagoda," by Rev. Sumner A. Vinton, of Burma. The views presented were very beautiful and the address was pleasing and full of information. Mr. Vinton is of the third generation of Baptist missionaries to labor in the land of the Judsons. His grandfather was an associate of the great missionary. Twenty-five missionaries have been furnished by the family, and Mr. Vinton's mother is now the senior missionary in Burma. The family stands for 537 years of missionary service. We all hope to hear Mr. Vinton again.

Judge J. C. Wood, of Hayneville, Ala., accompanied by his estimable wife, has been spending a few weeks at the Sanitarium. They left us this week for their home. Just before leaving they kindly called at the IDEA office and expressed their continued confidence and delight in the Sanitarium, and left the assurance that they were going home feeling much rejuvenated and strengthened. They have been visiting the Sanitarium for nine years, and are holding their own remarkably well. Judge Wood has been chosen probate judge for Lowndes county for several consecutive terms, and stands high in the esteem of his fellow-citizens, as he does

with his many friends here. He gave us permission to say all the good things about the Sanitarium that we could think of over his name.

The Sanitarium School of Domestic Science and Household Economics will open its year's work on the 18th. The outlook for the approaching year is very encouraging to the promoters of the school. About thirty-five students have been admitted to the first year class, and these with the senior class will form one of the largest schools of the kind in the country. This is indicative of the increasing favor with which Sanitarium methods are being received and regarded. The demand for teachers in these methods is far greater than the supply. Among other students we notice the name of Mrs. Clarence Clowe, of China, an American resident of that country. Mr. Clowe is engaged with the Standard Oil Co., and these friends perceive such a demand for teaching of this kind in the rising empire that Mrs. Clowe has decided to fit herself for helping to supply this demand.

Some of the prominent patients this week are L. R. Root, manufacturer, Chicago; H. S. Milton, traveling adjuster for insurance company, Richmond, Va.; John A. Hess, merchant tailor, Wheeling, W. Va.; James Boyd, merchant, Denison, Neb.; C. M. Roser, capitalist, Detroit; Albert Wise, railroad construction engineer, Valley City, O.; R. C. Wieboldt, real estate and loans, Chicago; Bert Cobb, artist, Detroit, Mich.; George Lawrence, capitalist, Galesburg, Ill.; Homer B. Snyder, postal clerk, Manitou, Col.; Dr. M. O. Terry, ex-surgeon general S. N. Y., Mamaroneck, N. Y.; Thomas Strain, horticulturist, Fullerton, Cal.; C. P. Collins, oil magnate, Tulsa, Okla.; J. W. Sloneker, real estate, Hamilton, Ohio; E. H. Bancroft, bathhouse manager, Hot Springs, Ark.; G. B. Holmer, real estate, Alpena, Mich.; R. S. Greenlee, manufacturer of stoves and fixtures, Chicago; O. J. Parker, manufacturer of agricultural implements, Pittsburg, Pa.

The Christian Endeavor service on last Friday evening was rather unique and at the same time proved to be most interesting. The subject assigned to the meeting was that of "Denominationalism: What My Denomination Has Done for Me." As the Sanitarium is wholly undenominational, and the Christian Endeavor Society is made up of members from all denominations, it might be supposed that the situation would have proved embarrassing. But it was not at all that way. The following gentlemen responded to the extempore invitation for remarks: Rev. C. S. Mason, Kansas; Mr. H. C. King, of Seattle; Mr. T. J. Allen, of Auckland, New Zealand; Mr. Irving Keek, of Florida; and Rev. Langworthy, of Minnesota. The harmony with which these men gave their impressions of denominationalism on general principles showed that there must be a very prevalent impression that there is no really good use for so much of the sectarian spirit as has been manifested in the past. All felt that the hour had been pleasantly and profitably spent.

THE BATTLE CREEK IDEA

VOLUME IV
NUMBER FORTY-TWO

FIVE CENTS
A COPY

PUBLISHED WEEKLY AT BATTLE CREEK, MICHIGAN. SEPTEMBER 22, 1911

The Sanitarium at Home Diet and Endurance Eating For Strength

Dr. A. J. Read, in a Parlor Lecture, Tells How Sanitarium Treatment May be Administered at Home—The Necessary Equipment is Simple

WHILE you are here receiving the benefits of the Sanitarium, you are doubtless thinking of the people at home who need some of the good things you are getting here. A few of you have been privileged to come to the Sanitarium, and your after lives will show the benefits you have received. It is my purpose to tell you how you can have a

Taken from an Address by Dr. J. H. Kellogg, at Bay View, Michigan, August 14, 1911

SPEAKING at the recent annual meeting of the American Health and Efficiency League, Doctor Kellogg made the following statements:



THE BATTLE CREEK SANITARIUM—MAIN BUILDING

Sanitarium at home; there ought to be one in every home, because there are people there who need it perhaps even more than you who have come here. Some of those who come to the Sanitarium are almost like old wrecked vessels that we are trying to save—derelicts on the ocean of life that we are trying to reclaim, wrecks like the wreck of the "Maine" that we are trying to bring to the surface again, scrape off the barnacles,

Repair the Hull,

and try to make useful. But the young people at home, those who are growing up, and who are laying the foundation for their physical
(Continued on page three)

The opinion exists to quite an extent that the eating of meat is essential in attaining strength, and endurance. And this opinion exists in spite of frequent tests and experiments that have demonstrated the falsity of the claim over and over again. To effectually answer such an assertion, one has but to look at the animal creation. The ox, the horse, the elephant, and indeed all the

Beasts of Burden and Labor Are Non-Flesh-Eating Animals.

The carnivorous animals naturally roam about during the night after their prey, and then sleep during the day when honest animals are at work. Every test of strength between men who eat flesh and those who do not eat it has resulted in showing the supe-

rior strength and endurance of the latter class. And yet, people doubt and hesitate to receive this well-attested fact.

A diet of fruits, grains, nuts and cereals is a diet that sustains many tribes and nations of men and species of animals, and has kept them in good, vigorous health for ages; and the fact that we are able to live while eating some other things is only evidence that we have ability to resist the effects of unnatural conditions and to exist in spite of our transgressing. Flesh is an unnatural diet. The sooner we get rid of the idea that meat is essential to health and strength, the better it will be for us.

The sooner we become thoroughly convinced that we absolutely have no use for flesh foods of any sort, that they are absolutely unnecessary and unwholesome, and that when we take them we do it greatly to our disadvantage and injury; when we get dispossessed of the idea that they are necessary or even advisable, we shall be

On the Road to Better Things.

At the present time there is a popular notion abroad in the world that meat is an essential element in any diet, that it is the food *par excellence*. Nothing could be farther from the truth; nothing could be more positively absurd, than that an animal like a human being must eat the flesh of another animal in order to live. Why, the economy of the world is essentially opposed to this.

Ninety-nine out of a hundred

Scientific Men Acknowledge that There is a Creator,

a higher Power who formed man; and with this great fact before us, I want to call your attention to the fact that the same Power that made man told him what to eat. According to the very earliest records that we have, whether you call it tradition, whether you call it history, or inspired information, however you regard it, the very earliest information we have on the subject of diet, and the most authentic, is found in the first chapter of Genesis, and this comprises the first lesson in dietetics the world ever received. It says, "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." That is man's bill of fare—"every herb bearing seed, and every tree bearing fruit, to you it shall be for meat," or food. "And to every beast of the field and to every fowl of the air, and to everything that creepeth upon the earth wherein there is life, I have given every green herb for meat; and it was so." That was the primeval order of things. The animal creation was to be sustained by the vegetable world.

We were not left in the dark on this question. But we have wandered away from the original standard of diet, and it is a strange thing that that comical clown, the ape, has clung closely to the original order of things, while man has not. When we find an ape, a gorilla, a baboon, a chimpanzee, or orang-outang, he is still adhering to the original bill of fare, which the book of Genesis says God gave to man to eat. If we found the fierce gorilla killing and eating other animals, we should not wonder at it; but in-

stead we find these animals that come closest to man in their structure, though far stronger and fiercer, living upon the food man was intended to live upon. It is an interesting fact that some of these lower animals, as we call them, have wandered less from the right road in diet than man has.

Man Set Out to Exploit the World.

He was intended to live in the tropics; but he insisted on experimenting with himself, and living everywhere else but in the tropics. Man acquired the art of making clothing, and by the aid of clothing, by making houses and protecting himself, he was able to live in any sort of climate. By the aid of cookery he has been able to eat a great number of things he otherwise could not have eaten. Cookery was not necessary in the primitive state. The soft cereals, the soft grains, the unripe grains and herbs are perfectly digestible in the green state. There is nothing more delicious to one whose taste is natural than ears of green corn just as you pick them off the stalk.

But we have developed the pernicious notion that everything must be cooked. Cooking destroys some subtle element in the food that is put there for our use, and that we need.

It was recently asserted by an English scientist that the rays of the sun shining upon the fruits deposit in those fruits and in all the cereals a certain amount of radioactive energy;

The Same Energy that is Found in Radium

is found in the actinic rays of the sun, and this energy is deposited in the fruit. That is one reason why fruit is so refreshing taken in its raw state; why the juice of an orange is so extremely refreshing and nourishing and helpful in a great number of cases. This class of food is not valuable because of any great amount of nutriment in it, but because of the subtle elements put into them that the chemist has never been able to discover; and probably one of the elements is this radioactive energy that has been deposited by the sun's rays, in fresh fruit, in fresh vegetables, that is found in spring water, but is not found in distilled water, and that is not found in anything cooked. Everybody knows that cooked water is insipid; there is something lacking; we do not know just what it is, but it has lost its refreshing qualities to some extent, and it has to be exposed to the air and shaken up in order to make it even tolerable.

Then there are oxidases, and diastases and various other enzymes that are found in the juices of fruits and of uncooked vegetables, which are destroyed by cooking. These are in some way essential to our well-being. We have gotten away from the order of nature:

We Have Sought Out So Many Inventions

to find ways of our own, that we have wandered in some respects entirely off the track.

To be sure, there are certain foodstuffs particularly dry grains, that we can not eat well without cooking. And the coarse vegetables, like the potato, turnip, parsnip, and those vegetable products, seem to require cookery in order that we may be able to assimilate them; but if we live entirely upon these cooked things, we experience a loss very

soon. In a couple of weeks children will get in a bad way on sterilized milk, but the juice of one lemon or one orange every day will change the whole state of things and save the child's life. The food that nature designed for us is exactly adapted to us, and when we depart very widely from the provisions of creative wisdom, we run the risk of deterioration and final extinction.

Different classes of animals living on different kinds of foods have different kinds of digestive organs. The whale eats fish, and it is well known by zoologists that

Whales Have from Seven to Eleven Stomachs;

so we conclude that for some reason it takes a very complicated stomach to deal with fish. It takes a complicated stomach to digest leaves and stems and coarse vegetables; so we find the goat provided with four stomachs. It takes a peculiar sort of an apparatus to digest meat. The dog has a stomach which makes a large amount of proportionately strong hydrochloric acid, and a liver four times as big as the human liver; it requires an enormous liver and a strong acid-forming stomach to digest meat. On the other hand, the ape has a stomach that is exactly adapted to soft grains, fruits and nuts. He has a stomach which makes the gastric juice that is adapted to their digestion.

But here comes along the man, who says, "I know what I want, and I propose to eat anything I like." The man is not adapted to eat the things the lion eats, because he does not have a stomach or a liver that is adapted to the lion's diet. A man who is going to live on cold-storage beef needs a turkey buzzard stomach and a turkey buzzard liver to take care of the carrion that is put out and sold under the name of cold-storage beef,—turkeys that have been lying up in the storage house for two or three years, and venison that has been there half a decade. So, if a man is going to live on coarse herbage, he needs a goat's stomach to digest that sort of food and get out of it the nourishment the body requires.

Here is a man who sits down at a hotel table, and on the bill of fare is

The Food of All Creation.

There are fish for the whales, herbage for the goats, meat for the dogs, and there are fruits and nuts for the monkey. The man sits down there with his one little ape stomach adapted to fruits and nuts, particularly, and expects to be able to digest everything the whale digests, and all the goat digests, and all that the dog digests; and takes it all at one meal, too. Why, my friends, the way in which we deal with ourselves is preposterous. A man to eat that kind of meal requires thirteen stomachs working actively—seven whale stomachs for fish, four goat stomachs for the grass, one very strong stomach for the flesh meats, and another for grains, fruits, and nuts that belong to him—thirteen in all. There is no animal that can do it except the woodchuck, which has fourteen stomachs, and so he can digest the hotel bill of fare. No man can do it without ruining his digestive powers.

So we need to reform. We need to eat food that is adapted to our needs. We are off

the track when we eat the diet the dog eats, we are off the track entirely when we eat food that decomposes, that requires a turkey buzzard's stomach and liver to deal with it; we are only in the right road when we are eating the things that were intended for us, and indicated in the good Book as being the design of the Creator for the human race to forever subsist upon.

Character and Nutritive Value

When we come to study the character of foods and their nutritive values, we find as great a difference as we find in their digestibility. Porterhouse steak shows about sixty-six calories in an ounce. Dried beef has about the same value as beefsteak. Veal cutlets have about two-thirds as much. Head-cheese contains a large amount of fat and has a higher value. An ounce of pure starch has a caloric value of 116; wheat flour has about 100 calories, as it has a little moisture in it. An ounce of sugar or an ounce of starch is just about one portion, or 100 calories. The same is true of an ounce of dried gluten, or pure protein, which has almost exactly the same caloric value as starch. When used in the body it has a little less than four-fifths as much as starch, because it is not entirely utilized in the body as the starch is.

An ounce of fat contains 264 calories, more than two and a half times as much as the same weight of starch. Ham is about the same as beefsteak. Smoked bacon contains a large amount of fat; there is no objection to bacon on the score that it is not nourishing. Other and more serious objections are offered. A pound of bacon would be a day's ration for an ordinary man. Goose is ninety-six calories to the ounce, on account of the fat. All fish generally have less than half the nutritive value of beefsteak. Turkey has practically the same as beefsteak. The oyster is the lowest of all, eleven calories to the ounce. Pure beef-juice has seven calories, and yet many people imagine it is highly nourishing, but it really has only about one-tenth the value of bread. Meat contains about one-tenth its weight of extractives which are of a poisonous character. Beef-tea is a solution of these poisons. Its food value is only three calories to the ounce, only one-quarter that of thin barley gruel or skim milk.

We Come to Fruits.

An ounce of dates or figs has a nutritive value of about 100 calories, or about one portion to the ounce. Now, grapes have about a quarter of this value. The muskmelon is just about the same as the cucumber and the lettuce. There is very little nutritive value in melons. Dried raisins and dried prunes represent about 100 calories to the ounce. When we come to cereals and legumes, aside from green peas and string beans, an ounce of beans or an ounce of peas, or an ounce of flour, or an ounce of any of the cereals is a portion. In oatmeal, it is a little more, and popcorn and cornmeal have a little higher nutritive value, but in general you may say that the cereals and legumes, peas and beans and all kinds of cereals in a dry state furnish about 100 calories, or one portion, to the ounce.

When we come to nuts, we have something that is really surprising, just about double

the value of cereals and legumes, and more than three times the value of meats. Almond butter is three times the value of beefsteak. Even bacon, which has a nutritive value of 2,000 calories to the pound, because of the large amount of fat it contains, does not approach the nuts, with a food value of more than 3,000 calories to the pound.

THE SANITARIUM AT HOME

(Continued from page one)

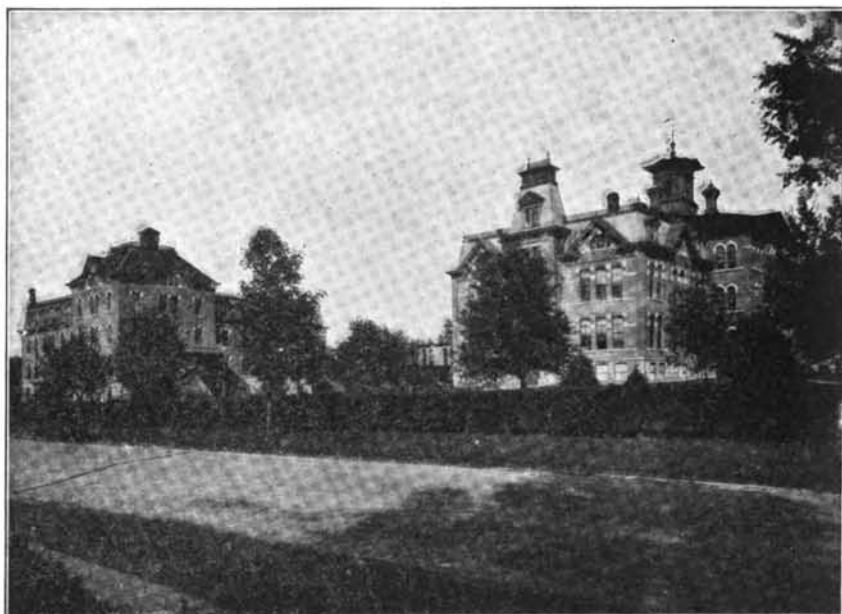
well-being, as you think of them, remember that you are attending a university of health for a short course, that the time of your graduation hastens on, and that you must be so well prepared on all the various subjects

Some of us are perhaps paying the penalty through long, weary years of the mistakes made in those early days. That way will not do at all for your children and mine; they must have something better if they ever attain the efficiency which they ought to reach in health and endurance.

I would suggest that in the home sanitarium, first of all, it is very essential that we should have

Hot Water Bags,

two three-quart oval bags and a spint bag—one of those long bags that reach the whole length of the spine. The hot bag for the spine is an effectual soother of tired nerves; and you can frequently make good use of that, even if you have no nurse at hand to administer treatments. You are tired out



NURSES' DORMITORY AND THE ADMINISTRATION BUILDING—FROM SANITARIUM AVENUE

that when you go to your homes again you will be able to teach those there the way of health so that they will not err therein as you have done.

When you get to your homes you will be pried with a thousand question: "What shall we do for this?" "What shall we do for that?" Accidents and emergencies and various contingencies will occur which will require prompt and wise action. What you are learning at the great university of health, the Sanitarium, should enable you to establish in your own home a Sanitarium well equipped for carrying out the fundamental principles that are practiced here.

As a boy I remember seeing in my grandfather's bedroom a cabinet made with the greatest care and skill of highly polished wood, and across the door of it was written, "Repository." When grandfather opened the door, I could see a lot of bottles, and I was told that those bottles contained medicine. But times have changed; we know better than to be doling out the medicines which used to be doled out in those olden days; a new day has dawned, a new era has come upon us.

when it comes afternoon, perhaps, and you have to entertain friends in the evening; just fill that hot spine bag full of boiling hot water, put it on the couch, lie down with the length of your spine next to it, and you will be surprised at the good effect. While it may not be quite as refreshing as fomentations or the "hot and cold to the spine" you receive at the Sanitarium, yet it approximates it, and does very well for that purpose.

The hot water bag is a splendid means of relieving many of the pains that are liable to come upon members of the household day or night; and can be made very useful. So I will say, install first of all a good set of hot water bags.

I would recommend also that you have an ice bag. You can get a very nice little soft rubber ice bag that does not take much room; and by keeping it well powdered with talcum powder you can preserve the rubber so that it will last for years, being used only occasionally; and when it is wanted, it is invaluable.

I would strongly recommend that in your sanitarium you have another article with

which you will have become well acquainted during your experience at the Sanitarium, and that is

A Pair of Fomentation Cloths.

Select a blanket, partly cotton and partly woolen. One blanket will make four fomentation cloths. They can be applied in an endless variety of ways to relieve pain, to relieve congestion, to help indigestion. When one of the family complains of pain in the stomach from eating too much ice cream, green apples, or something of that kind, there is nothing in the world that will soothe that stomach like a good, hot fomentation. Wring the flannel out of boiling water and put it on as hot as can be borne. When it cools, have the other ready, and the child will soon forget the pain. If it is a case of rheumatism, you will find the fomentation very useful. While you are here at the Sanitarium, notice the various uses of the fomentation, so that when you go home you will be able to pass an examination on that subject.

Besides the fomentation cloths, I would recommend that you equip yourself with a moist abdominal girdle, or the *umschlag* of the Germans, which is simply a broad girdle of woolen cloth one-fourth of a yard wide,

down a meal that is too much to be eaten in an hour, and go back to business, bending over the desk. The result is, the liver gets sluggish; it rebels. People talk about having bad livers. It is really slander upon the liver to call it such names. Very few people have bad livers. Almost everybody has a good liver, and we ought not to talk about members of our own family. The most of us have good livers, and if we give them a fair chance they will serve us well; but a liver that is abused in that way will register a complaint; it ought to.

So do not complain of the liver, but stop eating hastily, a meal once in a while, rather than eat so hastily and overeat to such an extent. But when these attacks do come on, do penance by putting on a moist abdominal girdle, wearing it over night, and you will be surprised to see how well you will wake up in the morning. Take a sponge bath and you will have a splendid appetite.

Another thing that I would recommend at this season of the year would be a similar application for the throat,

A Throat Compress.

This is composed simply of a piece of linen or cotton cloth, large enough to encircle the neck, and a piece of thick woolen cloth over

A Chest Compress

is a very simple affair, similar to the other compresses, but adapted to application to the chest. It consists of a cotton or linen



THE CHEST COMPRESS

bandage that is wrung out of cool water and wrapped tightly around the upper body, over and under the arms, and then covered with a dry bandage of heavy flannel fastened tightly around arms, neck, and waist with safety pins. If you wish to learn how they are made and the dimensions, the clerk in the pharmacy will show you a sample properly made; and to learn how they are used, you can get one of the nurses in the bathroom to demonstrate it for you at any time, and you will have a chance to see just how it is applied. We used to think pneumonia was not curable, and had to run its course. But I am satisfied that many of the colds that are associated with pneumococcus infection can be thrown off by simply wearing the chest compress and throat compress for a few nights, until the cold is entirely well. The patient should receive a morning treatment when the compress is taken off, by sponging with cold water the portions that were covered with the compress overnight, and the addition of a rub with a little massage cream will give a good protection during the day; then renew the compress again at night, and in that way you can prevent, in the majority of cases, pneumonia and all sorts of colds which are apt to come on in the winter.

(To be continued)

OBSERVATIONS BY SANITARIUM GUESTS

MORE and more the people are coming into the recognition of the merits of the natural method of treating the body for its numberless ailments. The body only requires a reasonable chance for its life, and it will do its work for many years. The limit of "three score years and ten" was drawn down to that narrow span by the intemperate and heedless habits of people, who thus greatly shortened the period of human existence. Health is the normal condition. Sickness is unnatural. The Sanitarium pro-



AN AUTUMN DAY ON THE SANITARIUM LAWN

which will encircle the waist line, and another narrow girdle of linen or cotton cloth that can be placed underneath that. Wring the cotton or linen cloth out of cold water, apply it around the waist on retiring at night, with the woolen cloth over it, and you have one of

The Very Best Liver Regulators

in the world. The directions do not say, "Take so many pills, a dose every so often"; but it may be said, *Take ad libitum*, whenever you feel the need of it; and fortunately, it works while you sleep.

Some people are so busy they do not have time to take treatments; but they have to their railroad lunches; they go to a restaurant at noon and spend fifteen minutes crowding

that large enough to cover the cotton cloth well. The cotton cloth is wrung out of cold water and applied around the neck, and the woolen cloth pinned snugly over that, and the patient sleeps with it over night.

This is a season of the year when a great many people, through failure to adapt the clothing to the changeable weather, take cold. One of the first symptoms of cold in many people is a little dryness or soreness of the throat. That can always be cured by a compress of this kind worn over night. The trouble with most of us is that we pay no attention to a little sore throat. This throat compress, though small and inexpensive, will stand between you and some of the greatest and most appalling of all the diseases of winter which follow colds.

fesses nothing and aspires to nothing only to teach and to lead people back to natural ways of living and of regaining health.

G. G. LIEBHARDT, wholesale fruit merchant of Denver, Col.: "I candidly believe that the Battle Creek Sanitarium and its system surpasses any other sanitarium or system in this whole wide world. I have been here before, and therefore speak from experience. It is rather odd the way the treatments here affect some people. I have often known of patients who seemed to have received little good while here, but a few days after leaving they begin to feel great results of the treatments, and they go right on producing results. Wonderful is no name for it. I think there is no word strong enough to quite express the full value of the Battle Creek Sanitarium to the sick and tired people in this world."

J. H. FORD, of the Ford Publishing Company, Muskegon, Mich.: "Too much can not be said for the Battle Creek Sanitarium and the Battle Creek Sanitarium system. I have tried them out and therefore know of what I speak. There is no better place on earth for a person troubled with nervousness or constipation. The diet is a wonder of the age, and I think the teachings are perfectly logical and right."

W. S. GUTHRIE, cashier of the Farmers' National Bank, Oklahoma City, Okla.: "Every person seems to have a good word for the Battle Creek Sanitarium any place you might care to go in the United States. In fact, I had intended going to another curative resort until a number of my friends finally induced me to come here. I am certainly thankful that I came, and hope to be able to return for another visit next year."

DR. H. W. PATTON, Hemp, Va.: "I had no idea that the Battle Creek Sanitarium was as wonderful a place as it is, and with such a remarkable diet and system. I am greatly in favor of the non-flesh diet, and believe that if the patients here will only follow the instructions given them by their doctors there is absolutely no need of any person going away without relief."

REV. T. C. MOFFATT, pastor of the First Presbyterian church, Clyde, Kansas: "I was recommended here by a great many friends, apparently the biggest Battle Creek Sanitarium 'cranks' in the country. Although I have been here but a very short while, I am feeling a difference for the better already, and hope that in the time I may stay here to be completely cured."

J. L. BRADFORD, retired lawyer, New Orleans, La.: "The Battle Creek Sanitarium is very little like a hospital. You would naturally expect to find sickness in evidence everywhere. But that is just the mistake that is too frequently made. Optimism is expressed on nearly every countenance, and each fairly works for the health of another. It is a remarkable place—too remarkable to be really expressed in words."

MRS. J. H. FLEMING, of Portsmouth, Va.: "While visiting friends near Toronto, Canada, I felt that I must see the Sanitarium at Battle Creek that I had read and heard so much about, and although I could spare but

two short days, I felt well repaid for the trip. I found the rural surroundings to abound in picturesqueness. The fare was more than excellent. I hope to return some day for a much longer stay."

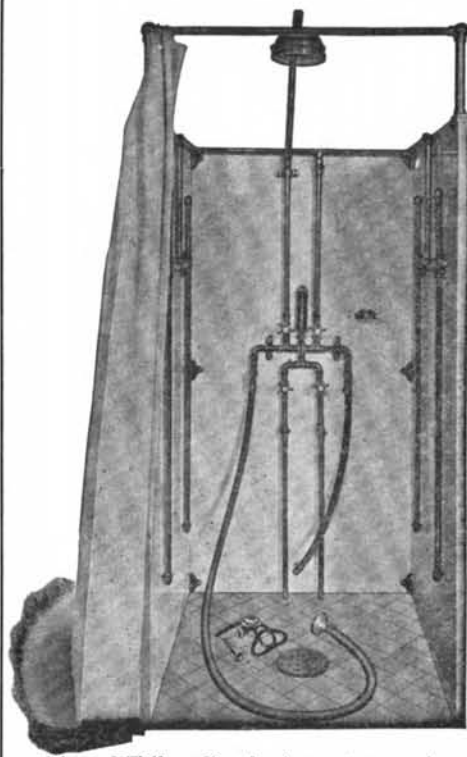
E. D. KIMBALL, real estate broker, Wichita, Kansas: "Here I am, back again. I said when I left before that I was coming back, and I've kept my word. I think there is no place under the sun like the Battle Creek Sanitarium, and I candidly believe, from

experience, that the Battle Creek Sanitarium System is not praised as much as it deserves."

WILLIAM H. WHITTAKER, attorney, Cincinnati, Ohio: "This is not my first visit and I sincerely hope not my last. I think there is no better place for the cure of nervous disease, and there certainly is no better place for rest. I would advise that any person looking for rest, recuperation and rec-

(Continued on page six)

"The Greatest Tonic in the World"



¶ You have still to enjoy the greatest tonic in the world if you are not yet taking a cold shower—rain, needle, or spray—every morning. Nothing in all this wide world can equal it as an eye-opener, appetizer, and invigorator. It makes you all aglow with that fine feeling that life is worth living.

¶ Would you pay a hundred dollars to enjoy this luxury in your own home every day for the rest of your life? It sounds incredible, but that is really all you have to invest to secure the KELLOGG HOME DOUCHE, which can be installed in your own bathroom, ready for immediate use at your own pleasure.

¶ With your hand in easy control of the water valves, you can take your choice of the shower from above, the needle spray from the sides, the ascending douche from below, the jet or the spray from any position—or combine any and all to suit your royal will, at any temperature you can stand, cold or hot. Truly a royal treat, to say the least.

¶ The Kellogg Home Douche gives you in a more convenient form practically the same advantages as the

celebrated Kellogg Douche Apparatus now in use everywhere in sanitariums, hospitals, treatment rooms, gymnasiums, etc. And the Home Douche dispenses with the attendant—you operate it yourself, and get as good results.

¶ And if you use it daily, you may steer clear of the day when you have to go to a sanitarium to get water treatment as a cure. Get it now as a preventive—in your own home.

PRICE:

The Kellogg Home Douche Apparatus, complete with attachments for Spray,	
Fan, Jet, and Ascending Douches.....	\$100.00
Duck Curtain and Curtain Rod, extra.....	10.00
Three Kiln-dried Hardwood Slabs with wood basin and floor drain (the wood basin is to be filled in with cement by your mason), extra.....	35.00
Slate Slabs, each, extra (wood slabs just as serviceable).....	15.00
Marble Slabs, each, extra.....	35.00

Good
Health,
Battle Creek,
Mich.:

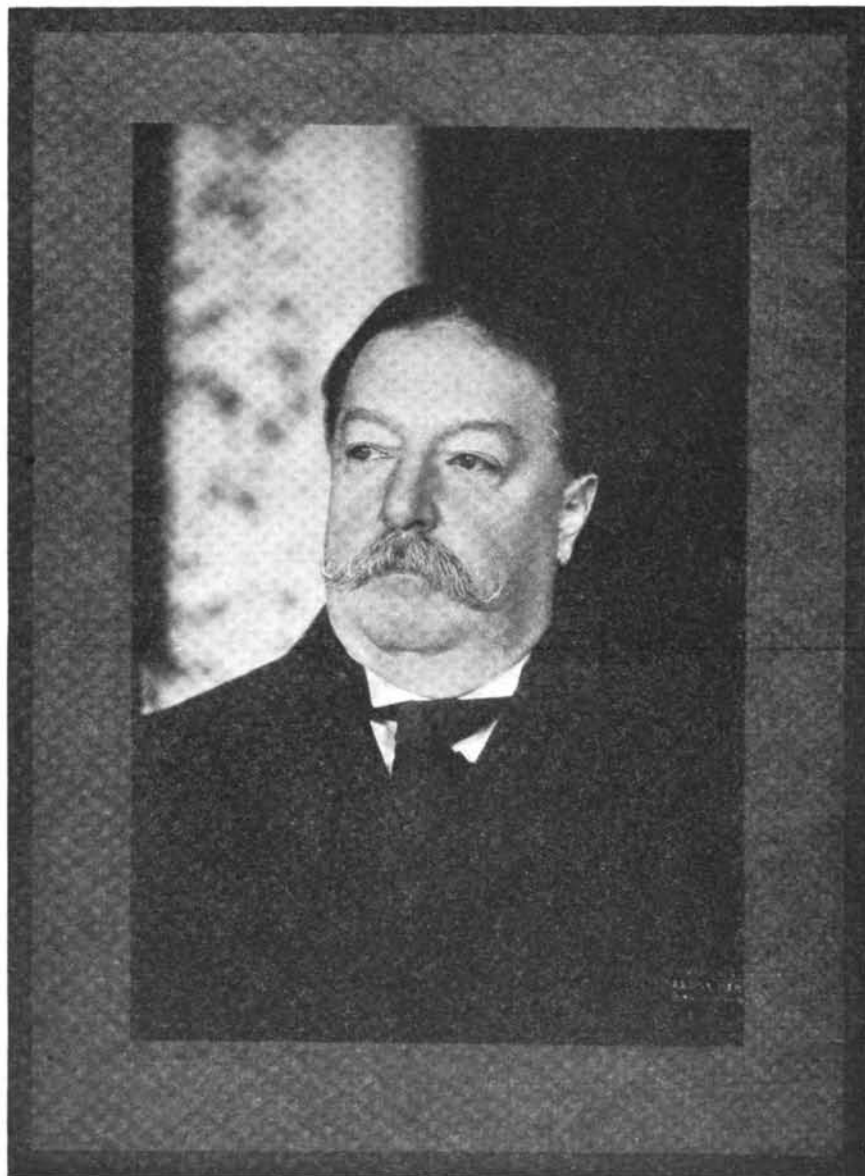
I am interested
in your Douche for the
Home—send me full particulars.

**Good Health Publishing
Company**

Battle Creek, Michigan

The President Visits Battle Creek and the Sanitarium

THE President of our country, William Howard Taft, honored the city of Battle Creek with a brief visit on the 21st inst, at three o'clock in the afternoon. He remained but one and a half hours. The presidential train came from the west on the Michigan Central, and backed into the station, Mr. Taft standing on the rear platform. At the McCamly street



crossing the train halted and four thousand school children marched past, each one bearing a small flag. The President received the children very graciously, and the youngsters, thrilled with a patriotic interest in getting a good view at a real live President of the United States, gave vent to hearty cheers. The train proceeded to the station, where a large platform had been erected to accommodate the presidential party and many of the leading citizens. One of the largest crowds ever gathered in Battle Creek assembled on the park facing the station in spite of the threatening state of the weather. The rising ground formed a natural amphitheatre, affording an excellent opportunity to see the chief magistrate of our great country.

The President was introduced by U. S. Senator from Michigan, Chas. E. Townsend, and proceeded to speak, giving principal attention to his views on reciprocity with Canada.

At the close of his speech Mr. Taft, accompanied by Senators Smith and Townsend and others of the President's party, paid a short and unexpected visit to the Sanitarium, passing

through the lobby and palm garden, greeting the guests and extending to the Superintendent his hearty appreciation of the institution and its work and his gratification at having the opportunity of seeing for himself an institution of which he had heard so much.

Early in the season it was arranged that President Taft should visit Battle Creek, spending an entire day or more here as the guest of the Sanitarium. But the arrangement of the extended itinerary upon which he has now entered made it necessary for him to remodel his plans. There is no doubt that the present appearance of Mr. Taft in so many large centers is well calculated to inspire the people who meet him with confidence in his administration. He has certainly manifested heroic courage in many of the positions he has maintained and steps which he has urged forward, and has evinced clearly a sincere desire to govern the country in the interests of the people.

Observations by Sanitarium Guests

(Continued from page five)

recreation, the three R's of the Battle Creek Sanitarium's curriculum, lose no time in getting here. It's just the place for anybody that's tired or anybody that's nervous."

C. G. KOPF, chemist and electrical engineer, of Youngstown, Ohio, who is here with his mother, and also undergoing treatments himself: "This is our first visit to the Battle Creek Sanitarium, but having heard so many of our friends sing the praises of this institution and its system, we almost feel at home, as though we had come here year after year. The courtesy shown on every side is all that could be asked and far more than you get in a great number of such institutions that I know of. Altogether I think there is no place quite as good as the Battle Creek Sanitarium, and no system quite as beneficial to a person as the Battle Creek Sanitarium System."

D. L. GUILFOYLE, an official of the Standard Oil Company at South Bend, Ind.: "I have been here but a few days and already notice a marked improvement. So far I have only the very best opinion of the Battle Creek Sanitarium and its system. Of course the diet is extremely different from what I have been used to, and at first it seemed strange, but now I rather like it, and look forward to mealtime."

C. M. KIDD, eminent horticulturist, of Medford, Ore.: "I was always inclined to believe that the teachings of the Battle Creek Sanitarium were sort of fanatical. Such thoughts were soon chased from my mind after arriving here, and now I have been completely converted to the ways of the Battle Creek Sanitarium System, and believe that it is the best for health recuperation that exists to-day. I can not say too much for the Battle Creek Sanitarium."

Before the science of sanitation was applied to the Canal Zone, it was a saying that in the construction of the Panama railway a life was lost by fever for every cross-tie built into the roadbed. To-day, under military and medical supervision, the erstwhile sickly zone poses as a health resort.

Sanitarium Postcards

A series of beautiful illustrations of familiar features and scenes about the Sanitarium, taken by our own artist. Select from the following list. Prices, two for five cents, one dozen for twenty-five cents, sent to any address. Order of the Sanitarium, Battle Creek, Mich. They may be ordered either by number or title.

- 1 Bird's-eye View Sanitarium.
- 2 Sanitarium in Winter.
- 3 Gentle Bath.
- 4 Gymnastic Drill.
- 5 A Winter Night Scene.
- 6 A Winter Night Scene.
- 7 The Front Entrance.
- 8 Receiving Physician's Office.
- 9 Phototherapy Department.
- 10 Blood-Test Laboratory.
- 11 Ladies' Bath-room.
- 12 Vegetable Greenhouse.
- 13 Corner in Gastric Laboratory.
- 14 X-Ray Laboratory.
- 15 Gymnasium.
- 16 Front Entrance of the Sanitarium.
- 17 Main Building from the College.
- 18 East Hall.
- 19 Palm Garden.
- 20 In the Greenhouse.
- 21 The Main Auditor.
- 22 The Main Dining-room.
- 23 West Hall.
- 24 Northern View of Sanitarium.
- 25 Cooking School.
- 27 Nurses at Chapel Exercises Easter Morning.
- 28 Universal Strength Test.
- 29 Breathing Exercises.
- 30 Breathing Exercises.
- 31 Breathing Exercises.
- 32 The Kitchen.
- 33 Palm Garden Pharmacy.
- 34 Lady Nurses' Dormitory.
- 35 Bath-room Treatments.
- 36 College Building.
- 37 View of the Rear Lawn.
- 38 View from Front Entrance.
- 39 Southern View of Sanitarium.
- 40 Ladies' Indoor Swimming Pool.
- 41 Nurses' Graduating Class, 1910.
- 42 Gymnasium and Bath-rooms.
- 43 Nurses' Graduating Class, 1911.
- 44 Main Building (from College Lawn).
- 101 Sanitarium Annex, from South Lawn.
- 102 The Annex, South Lawn.
- 104 Sanitarium Annex, from Southeast Lawn.
- 105 Sanitarium Annex, North View.
- 106 Sanitarium Annex, Southeast View.

ARRIVALS

THE Sanitarium register shows the following guests who have arrived during the week ending September 17: Chas. H. Hodges, Mich.; Miss Grace C. B. Jones, Detroit; Minor Sherwood and family, Okla.; Mrs. A. R. Taylor, Ill.; D. E. Jones, Tex.; M. L. Bobb and C. S. Morehouse, Ind.; Mrs. R. M. Johnston, Tex.; C. M. Kidd, Ore.; Mrs. E. M. Bowman, Chicago; D. F. Guilfogle, Ind.; J. W. McPherson, City; W. E. Birzele, Ill.; Chas. L. Doherty, Conn.; Mrs. R. W. English, Denver; C. G. Koppetz, O.; Dr. and Mrs. Taylor, La.; Emily May Ely, Mich.; Mr. and Mrs. H. McCarty, Ia.; G. C. Brant and wife, U. S. Army; J. F. Joyce and wife, Chicago; C. C. Hills, O.; Mrs. W. S. Bates, Mo.; U. L. Jackson and H. H. Ogden, Okla.; Samuel Adams, Ala.; L. M. Fairbanks, Ill.; Mrs. Mary K. Glenn and Miss Mildred Kline, Okla.; Robt. T. Johnson and wife, O.; Harper Reed, Mich.; Mrs. E. E. Williams, Minneapolis; Miss Mary Waldo, Mo.; Mrs. Frank Walter, Ind.; S. R. Vinton, Boston; Mrs. Payton E. Lyman, Minneapolis; Charles R. Sligh, Grand Rapids; Mr. and Mrs. E. D. Kimball, Kans.; B. S. Fletcher, Buffalo; Frank Walter, Ind.; Mrs. Daniel Weidner and Lilah Weidner, Ill.; E. H. Hazelton, Chicago; Mr. and Mrs. W. S. Lewis, China; B. Helfman, Detroit; R. T. Miller, New York City; C. A. Hight and wife, Ill.; Mrs. F. L.

Upjohn, New York City; Dr. F. E. Barrett, Kalamazoo; Mrs. D. E. Gilbert, Mich.; R. A. Josey, Tex.; E. D. Denison, Ill.; J. W. Zolard, O.; Leah Meek, Ill.; J. H. Kingman, Mich.; F. F. Burdick, Chicago; Mrs. W. S. Hunkins and daughter, Minneapolis; Mrs. C. E. Wolfenden, Wis.; Dr. D. D. Hooker and H. S. Hooker, Miss.; I. Soref and S. Sbar and son, Milwaukee; Mrs. A. T. Neff and Miss Elizabeth Neff, O.; Mrs. O. M. Purdon, Okla.; Earle H. Reynolds, Chicago; Edwin Bissell, Mich.; A. C. Muttar, M. D., and R. E. Farmer, New York City; Anna Isabel Noyes, N. Y.; Mrs. C. R. Buchanan, Mich.; I. S. Myer and wife, Tex.; E. L. Holmes and wife, Kans.; W. T. Robertson, Tex.; J. L. Bradford and wife, La.; Miss Margaretta Dryer, Cincinnati; Mrs. Barbara Stuessi, Kans.; C. L. Collins, Okla.; J. M. Landon and wife, Kans.; Mr. and Mrs. S. S. Woods and Marjorie Woods, Pa.; Amelia L. Upjohn and sister, Mich.; Addis Allers and wife, N. Mex.; W. E. Horreld, Mrs. A. T. Horreld, and Mrs. David Angell, Ill.; W. N. Whittaker and wife, Cincinnati; Louis E. Atwood, Conn.; Abbie Tompkins, N. Y.; Margaret Krusley, N. Y.; S. E. Whitney, Ia.; Wm. H. Heald, Ill.; Addie L. Barber, Detroit; Mr. and Mrs. B. E. Grace, Mich.; M. C. Tombler and wife, Ark.; Mr. and Mrs. C. H. Sherwood, Minn.; C. E. Pettit, Ark.; M. W. Hursley, N. Y.; Matilda von Pein, Ind.; Miss Maas, Ark.; Miss Lizzie Cripes, Ind.; O. W. Seaton, Minn.; Geo. Gose, Mo.; Mrs. A. J. Cook, Cleveland; Mrs. Elizabeth Hay, Chicago; Mrs. M. Larson, Mich.; Chas. C. Wilson, Chicago; H. P. Hawthorn and wife, Ill.; E. M. Taylor, Salt Lake City; Miss E. C. Arthur, Wis.; F. N. Rood, Ill.; B. F. Schoenberg, Chicago; C. J. Thompson, W. Va.; Peter Carlos, Ind.; Mrs.

Chas. Anderson, Ill.; Merle N. Smith, Colo.; Mrs. Jno. P. McGill, Ind.; Dr. Geo. C. Barton, Minneapolis; S. H. Nichols and wife, Pittsburg; C. D. Warner, Mich.; R. A. Downs, Chicago; C. E. Wolfenden, Wis.; Thos. E. Kane, Ind.; Robt. Phillips, New York City; R. P. Dond, Ia.; Mrs. J. A. James, O.; G. M. Reynolds, Chicago; Dr. H. W. Patton, Va.; Miss Myrta M. Smith, Ind.; Rev. T. C. Moffatt and wife, and Dr. T. J. Moffatt, Kans.; J. H. Smith, Miss.; Albert Theis and wife, Mo.; N. P. Clarke and Mrs. Clarke, and S. J. Alden, Minn.; Geo. L. Hawkins and wife, Miss.; Martha H. Pixley, Africa; S. Diskin, Ind.; Mrs. Geo. A. Lawrence and daughter, Ill.; F. J. Cook, Ind.; Mrs. N. Y. Anderson, Tenn.; Miss M. E. Reible, Ind.; J. M. Crawford and wife, Tex.; Oscar Halstrom, Kans.; Mrs. J. A. James, O.; Frank Spencer, Ill.; H. W. Coldren, O.; Jas. S. Myers and M. E. Brown, Mo.; Mrs. N. C. Butterfield, Canada; L. Nelson Lyon, Neb.; Dr. W. S. Chamberlin, O.; Mrs. J. C. Walk and Miss Julia F. Walk, Indianapolis.

News and Personals

W. Borda, prominent planter of San Juan, Porto Rico, is among this week's arrivals in search of health and recuperation.

Charles R. Sligh, president of the Sligh Furniture Manufacturing Company, Grand Rapids, Michigan, is here for his first visit.

Mr. and Mrs. J. W. Zollars, of El Paso, Texas, are registered among the patients this week. Mr. Zollars is a prominent banker of El Paso.

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Mrs. (Dr.) R. F. Rowdybush, of Decatur, Ill., is also among the many new arrivals to spend a few weeks.

W. S. Guthrie, cashier of the Farmers' National Bank, Oklahoma City, Okla., is among the guests this week. He expects to spend a few weeks here.

Attorney T. J. Cook, of La Crosse, Ind., was among last week's arrivals. He will make a few weeks' sojourn here in search of health.

The arrivals during the past week show evidence of good crops on the farms, especially down in Kentucky and Indiana, as the daily list of farmers at the Sanitarium is increasing.

Miss Frances M. Burns, assistant secretary of the Minneapolis Lumbermen's Association, Minneapolis, Minn., is a guest at the institution. Miss Burns is greatly impressed with the Sanitarium system.

Dr. H. B. Knapp and wife, Dr. Nettie Knapp, formerly in charge of the Pennsylvania Sanitarium, recently from Porto Rico, are spending a few days in Battle Creek as guests of Doctor and Mrs. Kellogg.

James S. Snyder, a well-known lecturer on "The Era of Common Man," of Kansas City, Mo., arrived at the Sanitarium a few days ago for treatment. Mr. Snyder is considerably run down from his long summer tour. He expects to spend a few weeks here.

Among last Sunday's arrivals were Rev. W. N. Smith, Colorado Springs, Col.; C. J. Thompson, constable, Matooka, West Virginia; P. W. Klipstein, banker, Beeville, Texas; R. A. Josez, oil business, Beaumont, Texas; C. A. Hight, banker, Dalton City, Ill.

During the past week there has been a noticeable arrival of practicing physicians, worn out from long and tedious professional work, seeking health and recuperation. Among these are Dr. L. J. Snively, Sterling, Ill.; Dr. Addis Albrow, Columbus, New Mexico; and Dr. H. W. Patton, Hemp, Va.

Dr. R. H. Harris is representing the Battle Creek Sanitarium this week at the annual meeting of the American Hospital Association in New York. He will read a paper prepared by Dr. J. H. Kellogg for that meeting, Doctor Kellogg being unable to get to the meeting.

Preparations are being made at the Sanitarium for the largest swimming tournament exclusively for women ever held here, to come off the latter part of next week. New entries are being received daily, and Professor Corsan and the directors of the ladies' swimming pools are kept quite busy.

Quite a number of missionary guests are now resorting to the Sanitarium to take advantage of its facilities for rest and treatment after years of arduous service in distant fields. Among those most recently arrived is Miss Martha Pixley, from South Africa.

The opening of the Sanitarium School of Domestic Science and Household Economics, which took place the first of the week, was marked by a very pleasant evening reception to the new class, held in South Hall parlor on Tuesday evening. The class numbers about thirty-five, being the largest ever admitted to the school, and includes one member from China and another from Natal.

A unique entertainment was provided for the Sanitarium family on Tuesday evening, when Mr. Edgar Nelson, of New York, gave a stereopticon exhibition of antique books, pictures and stamps. Mr. Nelson's collection is remarkable, especially in the line of rare stamps, in which he has quite a large fortune invested. Mr. Nelson is recognized as one of the most successful philatelists.

We received a pleasant call the other day from Mr. W. E. Birzele, central Illinois agent for the Sanitarium Health Foods, with headquarters at Peoria. Mr. Birzele is thoroughly imbued with the Battle Creek idea and an ardent believer in and advocate of Sanitarium foods. He improves the opportunity frequently to come to headquarters to note the progress that is always to be seen after intervals of absence.

Mrs. Fannie E. Dowkontt, who acts as social matron during the winter months, is expected to return the last of this week and resume her duties. During the summer this lady is in charge of a missionary rest home in the Berkshire Hills of western Massachusetts. In her ministrations at the Sanitarium she is able to contribute much to the enjoyment and well-being of our patients and guests, all of whom are ready to give her a warm welcome.

A missionary meeting under the auspices of the Sanitarium Christian Endeavor Society was held recently in the Sanitarium chapel. There were speakers from China, Turkey, and India. This society is sustaining a native nurse in India, and a collection to help in the work there was taken. The officers of the society were more than pleased with the result, something over \$48 being taken in. The Sanitarium Christian Endeavor Society meets every Friday night in the Sanitarium chapel. Patients are invited as well as Sanitarium helpers.

Dr. Carolyn E. Geisel, the Sanitarium representative on the Chautauqua platform, gave one of her inimitable talks in the parlor last Sabbath afternoon under the title of "Gossip." The address consisted of recounting pleasant experiences and observations during her summer tour, and deeply touched the hearts and consciences of the large audience. On account of having to wait for desirable illustrations, the publication of the article relating to Doctor Geisel's work is postponed one week.

Mr. Carl Christiansen, of Denmark, who came over to the Sanitarium for the purpose of completing his nurse's training, having finished the course, is about to return to his native land. His associates gave him a very pleasant surprise last week, accompanied by

many expressions of good fellowship and best wishes for future success. Mr. Christiansen has won the highest esteem of all with whom he has become acquainted, and we have no doubt that a very useful future awaits him.

"Man, wishest thou to live happy and wise? Attach thy heart only to that beauty which perishes not; let thy condition border thy desires; let thy duty precede thy wishes. Learn to love that which never can be taken away from thee; learn to leave all when virtue orders it. Then thou wilt find in the possession of even very fragile things a pleasure which nothing will be able to disturb; thou wilt possess them without them possessing thee; and thou wilt feel that man from whom all escapes enjoys only that which he knows how to lose."—*Rousseau*.

Among prominent lady patients at the Sanitarium this week are Mrs. C. H. Sherwood, wife of C. H. Sherwood, court reporter, Willmore, Minn.; Martha H. Pixley, of Boston, formerly a missionary at Durban, Natal, South Africa; Miss Margaretta Dreyer, sister of Rev. J. H. Dreyer, Bethesda Hospital; Mrs. J. J. Stuess, deaconess, Kansas City, Kansas; Mrs. J. M. Landon, wife of the Independence, Kansas, oil magnate; Mrs. E. M. Bowman, wife of E. M. Bowman, secretary of the Bowman Dairy Company, Chicago; Mrs. A. R. Taylor, wife of President A. R. Taylor, of the James Millikin University, Decatur, Ill.

Bishop W. S. Lewis and Mrs. Lewis, of the Methodist mission of China, with headquarters at Foochow, are guests of the Sanitarium, having arrived last week. Mrs. Lewis required surgical treatment, which has already been administered with pronounced success, and the estimable lady, we are pleased to say, is already on the road to recovery. Bishop Lewis has already won his way into the hearts of the people who compose our large family by his whole-souled, genial Christian kindness. He will occupy the pulpit of the Sanitarium chapel next Sabbath forenoon at eleven o'clock. The Bishop will remain with us until October 1. Mrs. Lewis expects to rest and recuperate here for a longer time.

Among the prominent patients to arrive during the past week were Rev. T. C. Moffatt, of Clyde, Kansas; Dr. H. W. Patton, Hemp, Va.; J. L. Bradford, retired lawyer, New Orleans, La.; W. H. Whittaker, attorney, Cincinnati; Thomas Lafferty, coal and real estate business, Little Rock, Ark.; S. S. Woods, president of the Pennsylvania Glass Company, Lewistown, Pa.; E. F. Holmes, clothier, Wichita, Kansas; Edwin Bissell, retired merchant, Hickory Corners, Mich.; D. L. Guilfoyle, Standard Oil Company, South Bend, Ind.; C. M. Kidd, horticulturist, Medford, Ore.; M. L. Babb, cigar business, Muncie, Ind.; D. E. Jones, cashier of the First National Bank, Rising Star, Texas; Dr. J. L. Snively, Sterling, Ill.; R. W. English, lumber manufacturer, Denver, Col.; E. S. Gunnell, merchant, Salisbury, Ill.; E. D. Kimball, real estate broker, Wichita, Kansas.

THE BATTLE CREEK IDEA

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The Sanitarium at Home A Scientific Protest

Dr. A. J. Read, in a Parlor Lecture, Tells How Sanitarium Treatment May be Administered at Home—The Necessary Equipment is Simple

(Concluded)

ANOTHER thing I would recommend in the home dispensary is a fountain syringe. The uses of it are almost innumerable. Its use in irrigations of the ear will often give great relief. However, when

The Use of Flesh Food is Unscientific and Unnatural—No Need of Meat Substitutes, According to Dr. J. H. Kellogg

THERE is this scientific objection to the use of all meats as food, an objection that nobody can evade, that meats of all sorts add to the ordinary bill of fare an excess of protein. The more scientific the man who considers the question, the more clear the objection



THE BATTLE CREEK CROWD LISTENING TO PRESIDENT TAFT

hot irrigation of the ear is used it should be followed by drying the ear thoroughly with absorbent cotton. Great care must be taken in treating the ear.

Irrigation with cold water may be used on gunshot wounds and other wounds where there is inflammation, if covered with a protecting piece of rubber. Irrigation may be used over an inflamed joint to keep down the inflammation; and the irrigations of the colon that are necessary in some cases are much better then dosing with calomel, jalap, and various other remedies that are used in cathartic pills, liver pills, and so on. It is much better to make use of this simple application; so I would add the fountain syringe to the list.

(Continued on page two)

is to him. The great fundamental objection to all flesh foods is that they supply protein to the body in excess of what we need; and any excess of protein is waste matter; it is worse, it is poisonous matter. Protein is a very different thing from fats and starches. I am sure it can be made clear to every fair-minded person that here is a cogent reason why meat should be strictly prohibited from the bill of fare. It is absolutely detrimental and pernicious in its influence upon the body.

Natural Foods Contain Sufficient Protein

Almost every food, at least the ordinary assortment of foods that are furnished from the vegetable kingdom, such as nuts, grains,

vegetables, contain a sufficient amount of protein. Professor Folin, the great chemist of Harvard University, said in a lecture a year and a half ago, and I heard him make the statement, that we need not have the slightest concern about not having sufficient protein in our foods, we always have enough; the only thing is to be careful not to get too much. Select any bill of fare you like, and you will always find protein enough. Potatoes have enough; bread has more than we need. If we lived on bread alone, we should have an excess of protein, more than we really need; a diet of bread and meat is really a monstrous diet, fit only for carnivorous animals, because the great excess of protein is more than the human body is prepared to deal with. So meat is an excess, it is all a superfluity, absolutely unnecessary.

You say, "What shall we use in place of meat?" You don't need to use anything in place of meat. You only need to discard from your mind the idea that meat is necessary. If you just get that false thought out of your mind, you never need to think of it again as long as you live; you need not provide any substitute for it. But you say when you do not have meat you feel the lack of something. That thing you feel the lack of is not the lean meat, but it is the fat of the meat. You are not taking as much fat as you have been formerly taking, so you should add a little butter or other fat to your bill of fare.

Fat is the Satisfying Element;

it is the one element of food that produces satiety, and it is the only element of food that will do it. You might eat a pound of candy and be as hungry when you were through as at the start; but if you undertook to eat a pound of butter, you would have to take a good long time to get through with it. A couple of ounces of butter would be quite sufficient. A man might eat a couple of pounds of fruit and feel that he was not satisfied; he wants something more; he needs bread and butter, or fat of some kind.

That is why the Mexicans eat their bananas and their plantains fried; they feel the need of fat. That is a very poor way to take fat, because it renders the banana, which is a very digestible sort of food, difficult of digestion. Frying food in fat is not to be recommended.

I am making these suggestion for your benefit when you go home and are arranging your bill of fare. I hope you will get those things all thought out and planned before you go. If any of you want a bill of fare to take home with you, call on the dietitian or come to the school of health and ask questions, and you can get all the help you want in that direction. We shall be very glad to have letters from you when you go home.

Learn How You Ought to Live.

If you have any difficulties, write and ask us about them, and we shall be glad to help you in every way we can.

I had a letter from a man in Brooklyn some time ago. He said, "This healthful diet is a most delightful thing. We have adopted it, and my wife says there is no housekeeping any more. She says there is no grease on the plates, so all she has to do

is to just dip them in water, and they are clean; we have only two meals a day; we take almost all our food just as it comes from the field; we are living largely on fruits and nuts, with a few cooked cereals, and it simplifies the whole matter of housekeeping to such a degree that my wife says she does not have half as much work as she formerly had, and has considerable time to spend in self-improvement and having a good time."

That is certainly a great advantage. We spend too much time in superfluities, in preparing things that do us no good, that are positively harmful. Just think of the great amount of time the housekeeper or the cook spends in preparing dainties of various sorts—complicated mixtures that are extremely harmful and hard to digest. The simples are the proper thing.

"Oh," one says, "I can not stand such a diet." When you came into the world you were content with a simple diet. One article of food was all you asked for,

And You Cried for That.

The reason why you were content was because that one article of food had in it everything you needed. The one thing to be careful about in diet is that the food has in it all the body requires. In food in its natural state we will find all those things. It is only when we change and modify our foods that they become inadequate. In wheat we find nearly everything the body needs; the necessary lime is there, the carbohydrates are there; there is only one thing lacking, and that is fat. A handful of nuts will furnish that.

In the cereals we have a splendid assortment of what the body requires. But we send the wheat to the mill and grind it up, we take the inside superfine flour, and then we have only one grain of lime instead of four; the phosphates are nearly gone, and the body is robbed of the elements that are most essential to its welfare and the building up and maintaining the strength and vigor of the system. But if we take the entire wheat, rejecting no part of the grain, we have a natural food. And when we accustom ourselves to it for a short time, the appetite becomes adapted to it, and we have no craving for other things; we are content and satisfied with these simple foods. And then one relishes the food. I heard a man say some time ago, "I would give a thousand dollars if I had that relish for food that I had when a boy." I could say with truth to that gentleman that I have just the same keen relish for my food that I had when I was a boy, and I think a keener relish. That is the way one should eat. One really should not eat until he feels a keen desire for food. As Mr. Fletcher says, one ought to wait until his appetite whinnies at the sight of food.

THE SANITARIUM AT HOME

(Continued from page one)

It would be well to have in your home dispensary also a few bandages, for who has not been embarrassed by having some member of the family cut the finger or burn the hand, and you could not find a really clean piece of waste cloth that you

wanted to tear up for that purpose. Bandages are very cheap. You can buy sterilized bandages of various sizes at any drug store, that will not cost you more than fifteen or twenty cents, wrapped in impervious paper, and thus have them ready for use in your home dispensary.

Don't Use Salves

And right here let me mention salves. Nearly everybody used to think, and many people to-day think, that we must have some kind of salve to put on every cut and abrasion of the skin. The worst thing you can do is to spread any kind of salve whatever on a cut or abrasion, or almost any open wound. I have seen more people suffering from blood-poisoning as a result of the use of salves of various kinds with patented names and unpatented names, on open wounds, than from any other one cause. I can recall quite a number of people who, I believe, have lost their lives because of infection due to plastering open wounds with salves. The salve is apt to be full of germs, and it is not fit for use on an open wound.

There are some conditions in which the use of salve may be proper, but it is not a cut or an abrasion. I can not impress this too strongly upon you, because lives hang in the balance. Kind Providence has not allowed you to get sick and be obliged to come to the Sanitarium for nothing, but is looking forward to the time when you may save lives by what you have learned during the little vacation, forced perhaps it may be, that you have been taking at the Sanitarium. So do not take it as a serious calamity that you have had to come to the Sanitarium, but remember that this experience is a course of education that is to help you to save lives when you go home.

An Incident

I might give an incident apropos of this. I spent a little time a few weeks ago sight-seeing in California. Up in the Yosemite valley we saw some grand and beautiful scenes of Nature. There was present in the company a physician who had also attended the medical convention at Los Angeles and was exploring the National Park. This man, in going up the mountain, scratched his eye with a twig overhanging the narrow path, and thought very little of it. On returning to camp, he found the eye somewhat inflamed, but had nothing with him with which to treat it, and not having been trained in Sanitarium methods, he did not think of compresses and fomentations. So he found somebody in the camp who had some salve, and for want of something better to do, he put some of this salve on that little scratch. I went up to the Big Trees, and when I came back I saw a military ambulance taking some one out of the park, and on inquiry I found it was my doctor friend who was suffering from blood-poisoning from this scratch. The man was taken to San Francisco, and when I arrived there a couple of weeks later, I found a paper stating that he had died from blood-poisoning from the little scratch he had received in the Yosemite. The reason, I believe, was that he had closed in the germs that were there, and probably added more in a questionable salve which he applied to the open wound.

I would recommend that you have some kind of inhaler in your home dispensary, for almost everybody is subject either to infectious or circulatory colds in winter. A good pocket inhaler containing menthol and eucalyptus preparation, or a menthol and camphor preparation may be obtained in almost any pharmacy, and it is very useful as a palliative measure. It is not curative. The compress that I told you about is absolutely curative.

The Foot-Bath

I would recommend that in your home dispensary you have a bucket and a foot tub. You will need a bucket to wring out your fomentation cloths in and for other purposes. You should keep it ready for use at a moment's notice. Whenever a person gets any kind of ache—toothache, earache, headache, stomachache, or any other congestion or pain in the upper part of the body, the effects of the other treatments that are given locally may be doubled by giving a hot foot-bath. If you want the foot-bath to have the most effect, put some mustard in it. I am not recommending mustard for the table. Keep it among the other dispensary articles and only use it for application to the feet in this way. The derivative effect of the irritation it produces upon the skin will keep up the congestion of the feet for a number of hours after the foot-bath is taken, and will draw away a certain amount of blood that will relieve the congestion of the painful area, and in that way will enhance the value of your treatment very materially. I advise you to use the mustard only on occasions where you want to get up a strong counter-irritation. You will never need a counter-irritant in the stomach.

Packs

I would recommend that you have also in the home dispensary a pair of blankets for giving the wet-sheet or the blanket pack. You can use outside of those wet blankets any other blankets without injury; but you need to have a pair to go next to the wet sheet or blankets that may be used. In giving a wet-sheet pack, wring out a sheet from cold water, wrap the whole body in it, then wrap a dry woolen blanket outside of it, then another woolen blanket, tucking in between the woolen blankets hot-water bags at the arms, legs, feet, and at the sides, so as to increase the heat and the reaction. Then you can wrap around these blankets as many other blankets and comforters as you wish.

How to Head Off Disease

You can learn how to give the blanket pack scientifically in the bathroom. Keep your eyes and ears open and you will learn a great deal during your stay at the Sanitarium about how to give the treatments. In giving a hot blanket pack, one of the woolen blankets is wrung out of very hot water, placed on the bed or couch with a dry sheet over it, the patient lies down upon the sheet which with the blanket is at once wrapped about the entire body. Other dry blankets should be placed under the hot one sufficient in number to wrap the patient securely, with the object of retaining the heat as long as possible. A towel wrung

out of ice-cold water should be kept on the patient's head and he be allowed to remain in the pack for ten or fifteen minutes, or until a profuse sweat is produced.

Some member of the family will come in with a chilly sensation, will complain of having felt chilly all day, and unable to get warm; the finger-nails are blue, and the lips are blue, and there must be something wrong. That something in almost every case means some infectious disease; it may be a cold, typhoid fever, grippe, tuberculosis, or one of a hundred different diseases; it is not necessary for you to know what it is; all you need is to recognize the premonitory symptoms. It is easy to cure the most formidable diseases if we take them early enough.

For a long time we understood tuberculosis to be incurable; but we now know it to be one of the most easily curable of all diseases. More people get over tuberculosis than any other disease, because more people have tuberculosis than any other disease; but we must begin early. Instead of wait-

ing until we recognize the disease by cavities in the lungs, modern science has taught us that even germs in the sputum are a very slow method of recognizing tuberculosis. With the use of the X-ray we can now examine the lungs, and we can recognize the very earliest incipency of tubercular disease and can apply the suitable measures for recovery from the disease before ever the germs appear in the sputum and before the disease process has become fixed.

of one hundred, a simple hot bath followed with a cool bath, or cold sponging, will correct the whole trouble, and you will go on your way rejoicing. In the remaining few cases, perhaps it will require repetition two or three times with the hot bath to keep the circulation balanced, but it should be kept up as long as the chilly sensations return.

I would recommend a few simple disinfectants. Of all the simple disinfectants that are safe to have in your home, there is nothing to be compared to tincture of iodine. Bichlorid of mercury, a violent poison, and carbolic acid, another violent poison, have been recommended, but accidents are very apt to happen with the use of these disinfectants. There is very little danger of accidents from a bottle of tincture of iodine in the home dispensary.

B remedy for Burns

You need some application in case of burns. Burns are apt to occur at almost any time, and probably there is no one emergency or accident that is more often mal-



PRESIDENT TAFT SPEAKING AT BATTLE CREEK

ing until we recognize the disease by cavities in the lungs, modern science has taught us that even germs in the sputum are a very slow method of recognizing tuberculosis. With the use of the X-ray we can now examine the lungs, and we can recognize the very earliest incipency of tubercular disease and can apply the suitable measures for recovery from the disease before ever the germs appear in the sputum and before the disease process has become fixed.

That Chilly Sensation

that creeps up and down the spine should have instantaneous attention. There is no business so important but what the man will better go and take a good hot bath to balance the circulation, because of the infection which has disturbed the circulation; that is why the chilly sensations are creeping up and down the spine; these are friendly warnings of a diseased process that is coming on. If the capillaries of the skin can be dilated and filled with blood, you rob the invading army of germs of the blood serum which is feeding and nourishing them, and so starve them out, and the vital resistance will be able to throw them off. In ninety-nine cases out

treated than an ordinary burn. Remember that the antidote for heat is cold. That is sensible and reasonable, and when the skin is burned, the quicker you can get something cold on, the better. The next time the on and take it right off, it will make the burn worse, but if you keep putting on the cold for six or eight or even ten or twelve hours, if necessary, after the burn occurs, you will cure the burn and prevent a blister. You can nearly always get cold water and a towel or a handkerchief wherever you are, and you have all that is necessary for treating burns if you use those measures. If the burn happens to go through the skin, or if blistering is apt to occur, it might be desirable to protect the burned area with some kind of protective dressing. The best protective dressing for that purpose is the white of egg. The egg is approximately aseptic if it is fresh; it is safe to use in that way and makes a good protection. As soon as you can get to the drug store get some carroll oil, which is simply raw linseed oil with lime water, and that will give you a very good protective dressing for the burn. Keep cold cloths on over this kind of application and you will cure the burn.

THE VISIT OF OUR CHIEF MAGISTRATE

To honor the offices of trust and authority in our civil government is a patriotic and civil duty, even if it be not a privilege. The opportunity to show this honor was afforded to the citizens of Battle Creek and surrounding country on the recent visit of President William Howard Taft to our city; and the people responded to it most nobly. A crowd estimated at 40,000 was on hand to welcome and do honor to the President of this great country. It is probable that the estimate is too high, but the crowd was certainly great, and the whole demonstration was pleasing to the President, who has expressed his satisfaction in a note sent back to the city, and was gratifying to every true citizen and lover of his country.

President Taft's term of office has been marked by strong and manly efforts to carry forward those measures which he deemed to be for the good of the country. Among the many splendid things which Mr. Taft has done, which entitle him to the respect and gratitude of the American people, no single act is of greater importance and likely to result in greater benefits to the average citizen, than his recent vindication of Doctor Wiley, the originator of the Pure Food movement. Doctor Wiley is a magnificent fighter in the interests of the common people, to whom he has rendered perhaps more distinguished and disinterested service than any other citizen. President Taft's clearly expressed and complete vindication of Doctor Wiley, against the calumnies of his enemies, is only an expression of the just appreciation of his noble services, which must meet the approval of every intelligent and well-informed citizen of the United States, with the exception, of course, of the selfish and personally interested manufacturers and purveyors of unclean food.

As stated last week, the President snatched a few minutes from his brief visit to the city of one and a half hours to visit the Sanitarium, having expressed a desire to see the institution of which he had heard so much. Personally he is much in favor of the principles upheld here, and sets a good example to the men of the nation in his abstinence from liquor and tobacco. He is a clean, upright, and whole-souled man, with an attractive and pleasing personality, condescending and approachable by all classes. The city of Battle Creek was greatly favored by the President when at no small expense of inconvenience and labor he so deflected his plan as to take our little city into his itinerary. And his call upon our institution was a very gracious manifestation of his interest in, and approval of, our work.

WHAT THE PATRONS SAY

SUMMER has come and gone, beautiful autumn is here again; but though the seasons come and go, people visit the Battle Creek Sanitarium in every season of the year. It is true that there is almost an entirely different family now from that in midsummer. The present patients are receiving the benefits that those of summer derived before

them, and they never seem to mind expressing their approval and confidence in the Battle Creek Sanitarium and the Battle Creek Sanitarium System. Following are a few chats with Sanitarium guests:

DR. C. E. BENNETT, Pensacola, Fla.: "I am glad to get back to the old place again, to receive the treatment that can not fail to cure, and to once again be on the road to health. I have the utmost faith in the Battle Creek Sanitarium and its treatments. It is the health wonder of the age, an institution and system that are doing an untold amount of good in this world; and bearing in mind the benefits I have received here, I would recommend the Battle Creek Sanitarium to all who are looking for lost health."

GEORGE GOSE, druggist, Shelbena, Mo.: "Week after week I have read with interest the 'Chats from Sanitarium guests,' and I have never yet found one that even did the Sanitarium the credit that it deserves. Reiterate some of the strongest of those statements and you have my opinion in a mild way. I can not express it. I have been here before, so am not talking as a newcomer, but as a Battle Creek Sanitarium 'crank,' which I am mighty proud to be."

J. E. GORDON, land owner and capitalist, of Wallaceburg, Ontario, Canada, brother to the Hon. D. Gordon, M. P. for East Kent, who with his brother practically owns the town of Wallaceburg, says: "I was here a year ago this past June and derived such benefits and received such good teachings for better health that I decided to come back again, and here I am. Too much can not be said for the Battle Creek Sanitarium and the Battle Creek Sanitarium System. They are all that could be wished, and are not given the credit throughout this wide, unhealthy world that they should. The Battle Creek Sanitarium has helped me and there is no reason why it can not help others who come in search of health."

C. E. WOLFENDEN, president of the State Bank of Wonevot, Wis., who has visited the institution before, and is here at the present time for a few weeks' stay, declared: "There is nothing equal to health. What can a person do without health? Nothing, practically. There is a reason for so many people visiting the Battle Creek Sanitarium. They do not come and pay out their good, and probably hard-earned, money for nothing. The people troubled with ailments coming to the Battle Creek Sanitarium get what they are looking for, and quicker than they themselves would ever dream of. Health can be restored at the Battle Creek Sanitarium; and the sooner the world finds this out, the better it will be for all mankind."

DR. FRED A. WARTMAN, Mason City, Ia.: "Although I have heard a lot about the Battle Creek Sanitarium, this is the first opportunity I have had to visit it. Even at that I came sort of reluctantly. Like many others, I once had the idea that the Battle Creek Sanitarium System was nothing short of fanatical. After being here a few days I had such ideas driven out of my head and was ashamed of myself for ever thinking such a thing. The Battle Creek Sanitarium is a remarkable institution, with an equally great system. I feel greatly bene-

fited and hope to be completely cured before leaving for home. I was told that I could be, and I believe it now."

W. W. LOVELACE, of Lovelace & Company, wholesale grocers, Martin, Tenn.: "I am more than enjoying my visit here this time and already, though I have been here only a little over a week, feel more like myself than I have in a long time. When I was here some years ago I was greatly benefited, so much so, in fact, that it prompted my return again this year."

CHARLES KNOX, Pine Bluff, Ark., merchant, who was a member of the Charles Owen party at the Annex this summer, and who made his first visit to the Battle Creek Sanitarium at that time, is back again: "There is no place that I have struck yet quite as good as the Battle Creek Sanitarium, and no system quite as good as the Battle Creek Sanitarium System. I don't blame Charles Owen in the least for sticking up for the Battle Creek Sanitarium as he does. I candidly believe it is the greatest institution of its kind, and the most curative, in the whole world. If I hadn't thought so I wouldn't have returned again the same year."

CHARLES STOCKMAN, Jr., secretary of the Indiana Road Machine Company, Fort Wayne, Ind., who is a patient here now, having come the early part of last week: "The 'kittens' are bound to come back, I guess. I'm back again for some more of this great treatment. There is no institution, at least I have failed to find another, that has the facilities for restoring a person to health that are found here. The people of this vast country are daily beginning to appreciate that fact, as one after another, score after score, leave this Battle Creek Sanitarium cured."

C. C. SOMEVILLE, merchant, Midland, Michigan: "Having been here before, I would like to say that I think the Battle Creek Sanitarium methods are improving day by day. They are better now than last year, and there isn't the least doubt but that if I come back again next year, the system will be better still. I have been here but a few days now, but feel greatly improved in health. I intend staying until I'm cured. That's how much faith I have in this place."

FRANK MILLER, a prominent grocer of Wilmington, Ill.: "The oftener I come the better I like it and the more benefits I seem to derive. Say anything you want to about the Sanitarium and I'll sign my name to it."

BAY VIEW QUESTION BOX

THE following questions were asked and answered at the annual meeting of the Health and Efficiency League of America at Bay View, Mich., August 13 to 16, 1911:

QUESTION. Should one drink water or other liquids while eating?

ANSWER. Water may be taken in moderate quantity; that is, to the extent of half to two-thirds of a glassful at a meal, without injury, provided, of course, that the meal is not largely made up of liquid foods. In general, one may drink whenever he is thirsty, but the amount of water taken at

meals should be small. A few sips will relieve thirst quite as well as a larger quantity. The thirst incentive to drinking at meals is to rinse down imperfectly masticated food and to refresh the mouth, especially when hot and irritating condiments are used. When large quantities of water are taken at a meal, that is, two or three glassfuls, or the equivalent of other liquids, the stomach is overstimulated and an excessive quantity of gastric juice is produced.

Q. Is there any cure for diabetes?

A. In general, diabetes is not curable. The sugar may often be made to disappear from the urine, but the condition which produced the symptoms still remains. A person who suffers from diabetes is in some way crippled. The body has lost the power to oxidize and utilize carbohydrates. It has lost to some degree the power to store up glycogen. When starch is eaten, it is converted into glycogen, which is stored up in the liver and muscles. In diabetes this function is disturbed and to a large degree lost. By proper treatment and diet the ability to store up glycogen may be to a very considerable degree increased. In every case of diabetes the important thing is to enable the patient to digest as much starch as possible.

Q. Please give an average bill of fare for a day of the food necessary to properly equip a person for right living.

A. The average person should use about 2,000 calories a day. This supplies all the different articles of food at different seasons of the year. It should not be the same every day, but should vary. A typical diet might consist of graham bread and butter, potatoes and one or two other vegetables, lettuce, boiled rice or rice flakes, wheat flakes, corn flakes, and fruit. If sufficient time is taken in the mastication of food, it will rarely be necessary to weigh it, as the appetite will indicate when a sufficient amount has been taken. The exact amount of food eaten should depend upon the size of the individual, upon the amount of work done, and upon the season of the year. A person engaged in active mental work requires no more food than one who is doing nothing at all. Muscular activity increases the food requirement in proportion to the amount of work done.

Q. What causes goitre? and what is the cure?

A. The common cause is intestinal auto-intoxication. An antitoxic diet should be adopted; that is, meats of all kinds and tea and coffee and all alcoholic beverages should be strictly avoided. The thyroid gland is an antitoxic gland; that is, it has as its function in the body to destroy poisons; hence, if this gland is diseased all poisons should be avoided.

ARRIVALS

THE list of arrivals at the Battle Creek Sanitarium for the week ending September 24 is as follows: Wm. Wick, Pa.; Mrs. Frank Schairer, Mich.; Mrs. Alonzo H. Lin-

A CHANCE FOR STUDENT NURSES

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offers exceptional advantages to those who contemplate taking up the Nurse's profession. A Three-Years' Course is offered to Women, and a Two-Years' Course to Men. Over two hundred Nurses are employed in the institution.

The demand for Nurses who are trained in the Sanitarium principles and methods is constantly increasing, both in the institution and outside. A good salary awaits those who finish the course.

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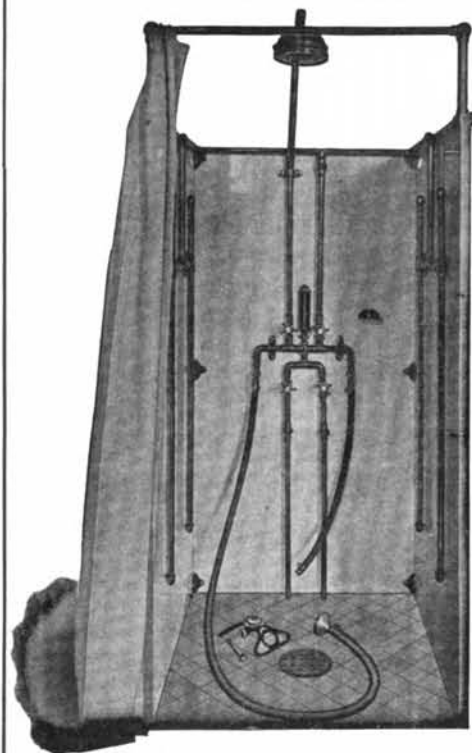
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ton, Mrs. Neal Farnham, and Mr. and Mrs. J. B. Abbott, New York City; Mr. and Mrs. G. P. Evans, Mrs. J. S. House, Mrs. H. L. Askew, Ind.; A. W. Jacobs, Va.; Estelle Musson, O.; H. T. Ham, N. C.; Wm. Burtless, Mich.; Gustave Lemle, La.; Isidor Levy, Mo.; Melinda J. Bentley, Ont.; Mr. and Mrs. F. A. Fowler, Chicago; M. Stockmann, Jr., and Geo. S. Linseott and wife, Ind.; J. H. Kingman, Mich.; W. N. Lovelace, Tenn.; Mr. and Mrs. E. F. Shellabarger,

Ill.; Chas. Crane and wife, Mich.; Hannah L. Durbin, Pa.; Adam Voyt, Ky.; William R. Moser, Fla.; A. H. Eagle and wife, and Onnette Hamilton, O.; Harry V. Johnson, N. C.; Thos. Eastman, Ia.; Miss Ida Hamilton, Chicago; H. A. Hopkins, Mich.; J. H. Clarkson, Chicago; Clifton G. Daland, Wis.; Mrs. J. L. Fuelling, Mexico; Elizabeth Edson, Boston; Mrs. E. A. Mayhew, N. Y.; B. F. Keffer, W. Va.; E. G. Lancaster, Mich.; F. F. Abbott and son, Calif.; Merle

Gearhart, Ill.; J. L. Taylor, Okla.; F. M. Barnhart, O.; Louis E. Hardy, Mich.; G. E. Travis, Ill.; W. R. and Mrs. Larson, Wis.; M. H. Coffin, Colo.; T. C. Donovan, Kansas City; Mrs. Walter Granger, Cincinnati; E. O. Shaw, Boston; T. G. Rolland, Detroit; R. N. Buchanan, Indianapolis; Alfred W. Fischer, Chicago; John Adema, Mich.; W. W. Milligan, Ind.; J. M. Milligan, Kans.; John Collins, Ont.; Mrs. Kate Southwick, Kans.; Mrs. G. B. Holmes, Mich.; Mrs. G. D. Dowkontt, New York City; Mr. and Mrs. Wm. J. Cox and Miss Cox, Denver; Mrs. N. Marr and Ruth Marr, Colorado Springs; Mr. and Mrs. G. A. French, Duluth; Mr. and Mrs. R. C. Moore, Chicago; P. B. Meyers, N. Y.; Mrs. J. A. Wardlow, Tenn.; E. M. Bowman, Mrs. W. B. Farris, and Louis Farris, Chicago; Jno. W. Karle and R. Karle, Mo.; Chas. S. Powell, Chicago; F. C. Shafer, Detroit; W. L. Wolcott, O.; Mrs. G. M. Shafer, Ind.; Mrs. E. E. Wellman and Edna J. Wellman, Mich.; R. C. Townes, Philippines; E. F. Hedges, Ind.; Mrs. E. P. Alderson and Hazel Alderson, W. Va.; Robt. Bowman, Conn.; S. W. Warren and wife, Buffalo; A. A. Lane, O.; R. D. Thain, Ill.; O. C. Somerville, Mich.; L. O. Oeles, Boston; B. W. Klipstein, Tex.; Mrs. F. N. Ogden, La.; Jno. E. Kipperly, Indianapolis; Jas. E. Pomeroy, Ind.; L. Eschelbach, Mich.; Mrs. J. T. Cummings, Cleveland; J. S. Kelsey, O.; G. Barber, Mich.; Hugo D. Almar, Chicago; Chas. Anderson, Ill.; G. G. Hartley and Conor Hartley, Duluth; Mr. and Mrs. J. R. Whiting, Mich.; Mrs. C. W. Bransford, Ky.; Margaret Stain, Calif.; Ed. E. Ramey, Lansing; Mrs. R. T. Smith, Mich.; Mrs. Geo. Hameryton, Tex.; P. Armbruster, O.; Dr. H. H. Haymond, W. Va.; L. P. Haymond, Va.; Lydia A. P. Whitecomb, Indianapolis; R. G. Johnson, O.; J. J. Timlin, Detroit; Jacob H. Feibel, O.; H. E. Pence, Minneapolis; Mrs. C. N. Pence, O.; W. J. Lyons, Tex.; B. G. Ballegooyen, Mich.; C. S. Howard, San Francisco; M. Rosenthal, O.; C. E. Wolfenden, Wis.; Mrs. W. P. Sidmann, Mich.; J. S. Lankford, Tex.; W. B. Farris, Chicago; Miss Annie Franklin, Ill.; Geo. H. Emerson, Wash.; Jas. A. Tanner, Neb.; Mrs. M. McGregor and son, Ia.; Mr. and Mrs. E. W. Harris, Tex.; Joe Emminger and wife, Indianapolis; Lottie L. Wickenden, O.; J. J. Innem, Detroit; M. E. Blood and wife, Mich.; Mrs. Chas. Dickenson, Mich.; Chas. A. Brownell, Cincinnati; Sallie Underhill, Ky.; J. W. Sloneker, O.; Mrs. C. H. Sherwood, Minn.; Mrs. Julia Butterfield and N. C. Butterfield, Can.; Harper Reed, Mich.

"The Greatest Tonic in the World"



¶ You have still to enjoy the greatest tonic in the world if you are not yet taking a cold shower—rain, needle, or spray—every morning. Nothing in all this wide world can equal it as an eye-opener, appetizer, and invigorator. It makes you all aglow with that fine feeling that life is worth living.

¶ Would you pay a hundred dollars to enjoy this luxury in your own home every day for the rest of your life? It sounds incredible, but that is really all you have to invest to secure the KELLOGG HOME DOUCHE, which can be installed in your own bathroom, ready for immediate use at your own pleasure.

¶ With your hand in easy control of the water valves, you can take your choice of the shower from above, the needle spray from the sides, the ascending douche from below, the jet or the spray from any position—or combine any and all to suit your royal will, at any temperature you can stand, cold or hot. Truly a royal treat, to say the least.

¶ The Kellogg Home Douche gives you in a more convenient form practically the same advantages as the

celebrated Kellogg Douche Apparatus now in use everywhere in sanitariums, hospitals, treatment rooms, gymnasiums, etc. And the Home Douche dispenses with the attendant—you operate it yourself, and get as good results.

¶ And if you use it daily, you may steer clear of the day when you have to go to a sanitarium to get water treatment as a cure. Get it now as a preventive—in your own home.

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The Kellogg Home Douche Apparatus, complete with attachments for Spray, Fan, Jet, and Ascending Douches.....	\$100.00
Duck Curtain and Curtain Rod, extra.....	10.00
Three Kiln-dried Hardwood Slabs with wood basin and floor drain (the wood basin is to be filled in with cement by your mason), extra.....	35.00
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Battle Creek, Michigan

News and Personals

W. S. Chamberlain, son of Dr. H. H. Chamberlain, of Canton, Ohio, is making a short visit in search of health and recuperation.

W. L. Wolcott, cashier with the Singer Banking and Brokerage Company, of Columbus, Ohio, is among this week's guests. This is Mr. Wolcott's first visit.

J. M. Milligan, a well-known land owner of Olathe, Kans., and wife, arrived this week

to spend a short time. They are both greatly impressed with the institution.

William J. Cox, a prominent mining engineer and operator of Denver, Colorado, is here with his wife and daughter for a few weeks' visit. Mr. Cox is very much impressed with what he has observed.

J. F. Taylor, a grocer of Collinsville, Okla., is here with his wife. They were recommended to the Battle Creek Sanitarium by several former patients from their home city.

S. H. Nicols, a prominent capitalist of Pittsburg, Pa., whose wife was a patient here last year, arrived during the past week to take the treatments upon her recommendation. Mrs. Nicols is here also.

Among the prominent Canadian guests this week is John Collins, a lumberman, of Sault Ste. Marie, Ont. This is Mr. Collins' first visit to the Battle Creek Sanitarium. He asserts that he is deriving benefits already.

Mr. and Mrs. Frank Miller, of Wilmington, Pa., who have visited the Sanitarium before, arrived the early part of last week to spend a few weeks recuperating. Mr. Miller is a prominent groceryman of Wilmington.

Among the Sanitarium guests during the past week from the State of Indiana were C. Stockman, Jr., secretary of the Indiana Road Machine Company, Fort Wayne, and State Field Examiner E. F. Hedges, of Lebanon.

Among the lady guests seeking health and recuperation this week at the Sanitarium are Mrs. Sue M. Menges, of Angola, Ind., missionary to China; and Mrs. Mary Sidman, sister of Dr. W. E. Upjohn, of Kalamazoo, Mich.

Among the law practitioners who have visited the Sanitarium for treatment during the past week from various parts of the United States, and who have only good words to say of the system in use at this institution, were F. E. Rawlings, Seattle, Wash.; C. E. Pettit, Stuttgart, Ark., and W. H. Heald, Wilmington, Del.

Charles Knox, a wealthy merchant of Pine Bluff, Ark., who was recommended to the institution by our worthy friend Charles H. Owens, of Pine Bluff, and who was here the early part of the summer with Mr. Owen's party of twenty-five from the one city, enjoyed the benefits to be derived here so much that he is back again this week for another stay.

An unusually large number of surgical operations have been performed in the Sanitarium surgery during the past week, every room in the surgical ward being filled and the patients overflow into the adjoining rooms. We are happy to say that the best possible results are being met in this branch of healing. Recoveries are very rapid and operations are almost universally successful.

Dr. James T. Case, accompanied by Mrs. Case and their child, sailed for the Old World from New York on the 28th instant by the Kaiser Wilhelm of the Hamburg line.

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They will stop at the Isle of Wight, which is the home of Mrs. Case's parents. Doctor Case will visit the great X-ray specialists in Europe and gather all available knowledge concerning recent developments in the line of the Roentgen ray.

During the week the Sanitarium entertained for a short time Bishop W. F. Anderson, of Chattanooga, bishop of the Methodist church, who recently conducted a conference at Flint. While here he met Bishop Lewis, of the China Methodist mission, who is also a guest of the institution. Both these gentlemen express pleasure with their experience in Sanitarium ways and the general atmosphere of the place.

Dr. J. T. Case, director of the Sanitarium X-ray department, has just returned from a visit to Richmond, Va., where he has been in attendance at the annual meeting of the American Roentgen Ray Society. The Sanitarium had an extensive exhibit of X-ray work covering a specialty of investigations of the stomach and intestines. The Society is made up of the directors of the X-ray laboratories of the various hospitals and large institutions throughout the country.

We are once more enjoying the most beautiful season of the entire year, the autumn, with its bountiful harvest of fruits and grains. The weather is delightful after the heat of summer, the trees are now putting on their gorgeous evening dress before disrobing for the night of winter. The days are warm and balmy and the nights cool and comfortable. No frosts have as yet marred the face of nature or the "punkin," though the corn is already in the shock. The Sanitarium guests are enjoying the good out-of-door atmosphere, and trips into the country are never more charming than now.

The Normal School of Physical Education begins its year's work the first of October, and at the present writing the prospects look very bright for a large attendance. The dear, W. W. Hastings, Ph. D., has been in the East for a month, and has returned to take charge of the work. Miss Nellie Fogelson, of New York, has arrived and will fill the post of instructor in gymnastics for women. Prof. H. M. Allen, of the department of psychology and Bible, has arrived from his summer work in Chicago and is ready to resume his work. Professor Anton Schatzel, director of physical therapeutics, is also with us again, and has taken up his work with the Sanitarium guests.

William H. Taft, President of the United States, accompanied by his private secretary, Mr. Hilles, and his aide, Major Butte, paid his first visit to the Battle Creek Sanitarium a week ago Thursday, during a short stay in Battle Creek. The executive was shown the most interesting features of the institution by Dr. J. H. Kellogg personally, and was as deeply impressed as far less personages have been, who little dreamed that the Battle Creek Sanitarium of to-day is what it is. President Taft spoke on reciprocity to 20,000 people from a platform

erected on the campus in front of the Michigan Central depot, in the afternoon. From Battle Creek he went to Kalamazoo.

On Saturday evening next Professor Robert Irving Fulton, dean of the School of Education connected with the Wesleyan University of Delaware, Ohio, and professor of oratory, will give an elocutionary entertainment in the gymnasium under the auspices of the Nurses Alumnae Association. Professor Fulton has spent his vacation at the Sanitarium and all have been made to feel the genial warmth of his presence. Out of his interest in the work of the institution he very kindly affords to the family this fine entertainment, of the excellent character of which we are all well assured. The small admission fee will go into the treasury of the Nurses' Association, where it will be used for the good of the profession.

Last Sabbath morning the Sanitarium family enjoyed a service of unusual interest. The address was by Bishop W. S. Lewis, of China, who spoke on "The Religious Consciousness of the Chinese People," illustrating by many instances the susceptibility of the Chinese people to the influences of the Gospel. The discourse was one of unusual power. The choir rendered in a most effectual manner Handel's Largo. The Methodist pastors of the city were present and with their wives remained to dinner with Bishop Lewis. This was something of a farewell dinner, as two of the pastors are leaving the city. They are Rev. E. G. Lewis, D. D., who goes to Muskegon, and Rev. G. A. Brown, who removes to Kalamazoo.

Among the prominent patients to register in the men's medical office during the past week were W. W. Lovelace, wholesale groceryman, of Martin, Tenn.; Wallace R. Moser, realty dealer, West Palm Beach, Fla.; S. H. Eagle, retired from the government service, of Gallipolis, O.; E. D. Yiesel, merchant, of Elkhart, Ind.; A. W. Jacobs, druggist, Danville, Va.; M. E. Blood, manager of Blood Bros. Machine Company, Kalamazoo, Mich.; H. F. Ham, retired merchant, Greensboro, N. C.; E. W. Harris, newspaper man, Greenville, Tex.; George H. Emerson, lumberman, Hoeman, Washington; George L. Hawkins, banker, Hattiesburg, Miss.; J. H. Feibel, merchant, Hillsboro, Ohio; S. H. Nicols, capitalist, Pittsburg, Pa.; J. A. Towner, planter, near Minter City, Miss.; Rev. W. N. Smith, Colorado Springs, Col.; W. H. Heald, attorney, Wilmington, Delaware; J. S. Kelsey, retired capitalist, Dayton, Ohio; J. E. Pomeroy, real estate, Auburn, Ind.

A GRATEFUL PATIENT

A LADY missionary who has spent a few weeks at the Sanitarium desires to express her gratitude for the good she has received:

"TO THE EDITOR: I wish to express my appreciation of all the kindness that has been shown to me during my sojourn in this institution. My physician has been most faithful, and I have felt from the first her one desire has been to see me well. All her pa-

tients improved so much right before my eyes, I could not help noticing it. I have tasted and seen what Battle Creek Sanitarium life is. I can say truly, it is good to be here. I feel I am leaving dear friends. The nurses have all been most attentive and kind to me. I have learned here how to take care of my body. I have learned something of the Gospel of Health. It is my purpose to teach it wherever I go.

"Words fail to express the gratitude I have for the great consideration shown to missionaries. The lectures have helped me, and I shall never forget the lessons I have learned here. Life at the Sanitarium seems a mutual aid society. There is the chance to receive that which can be given out again. I have never known of a place where there is such constant giving out of good advice.

"I am hoping that all I have received here may be of permanent benefit to me and to others whose lives I may touch. I hope this good work will keep on growing and prospering as God counts prosperity. I wish some missionaries might offer themselves for physicians and nurses. Surely the Battle Creek Sanitarium will need a double supply of physicians and nurses in time. By and by the world will see that a common-sense view is taken of diseases and people will want to be informed as to how to keep well.

"J. A. M."

Sanitarium Postcards

A series of beautiful illustrations of familiar features and scenes about the Sanitarium, taken by our own artist. Select from the following list. Prices, two for five cents, one dozen for twenty-five cents, sent to any address. Order of the Sanitarium, Battle Creek, Mich. They may be ordered either by number or title.

- 1 Bird's-eye View of Sanitarium.
- 2 Sanitarium in Winter.
- 3 Gents' Bath.
- 4 Gymnastic Drill.
- 5 A Winter Night Scene.
- 6 A Winter Night Scene.
- 7 The Front Entrance.
- 8 Receiving Physician's Office.
- 9 Phototherapy Department.
- 10 Blood-Test Laboratory.
- 11 Ladies' Bath-rooms.
- 12 Vegetable Greenhouse.
- 13 Corner in Gastric Laboratory.
- 14 X-Ray Laboratory.
- 15 Gymnasium.
- 16 Front Entrance of the Sanitarium.
- 17 Main Building from the College.
- 18 East Hall.
- 19 Palm Garden.
- 20 In the Greenhouse.
- 21 The Main Parlor.
- 22 The Main Dining-room.
- 23 West Hall.
- 24 Northern View of Sanitarium.
- 25 Cooking School.
- 26 Nurses at Chapel Exercises Easter Morning.
- 27 Universal Strength Test.
- 28 Breathing Exercises.
- 29 Breathing Exercises.
- 30 Breathing Exercises.
- 31 Breathing Exercises.
- 32 The Kitchen.
- 33 Palm Garden Pharmacy.
- 34 Lady Nurses' Dormitory.
- 35 Bath-room Treatment.
- 36 College Building.
- 37 View of the Rear Lawn.
- 38 View from Front Entrance.
- 39 Southern View of Sanitarium.
- 40 Ladies' Indoor Swimming Pool.
- 41 Nurses' Graduating Class, 1910.
- 42 Gymnasium from East.
- 43 Nurses' Graduating Class, 1911.
- 44 Main Building (from College Lawn).
- 101 Sanitarium Annex.
- 102 Sanitarium Annex, from South Lawn.
- 103 The Annex, South Lawn.
- 140 Sanitarium Annex, from Southeast Lawn.
- 105 Sanitarium Annex, North View.
- 106 Sanitarium Annex, Southeast View.

THE BATTLE CREEK IDEA

VOLUME IV
NUMBER FORTY-FOUR

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Sanitarium Principles on the Chautauqua Platform

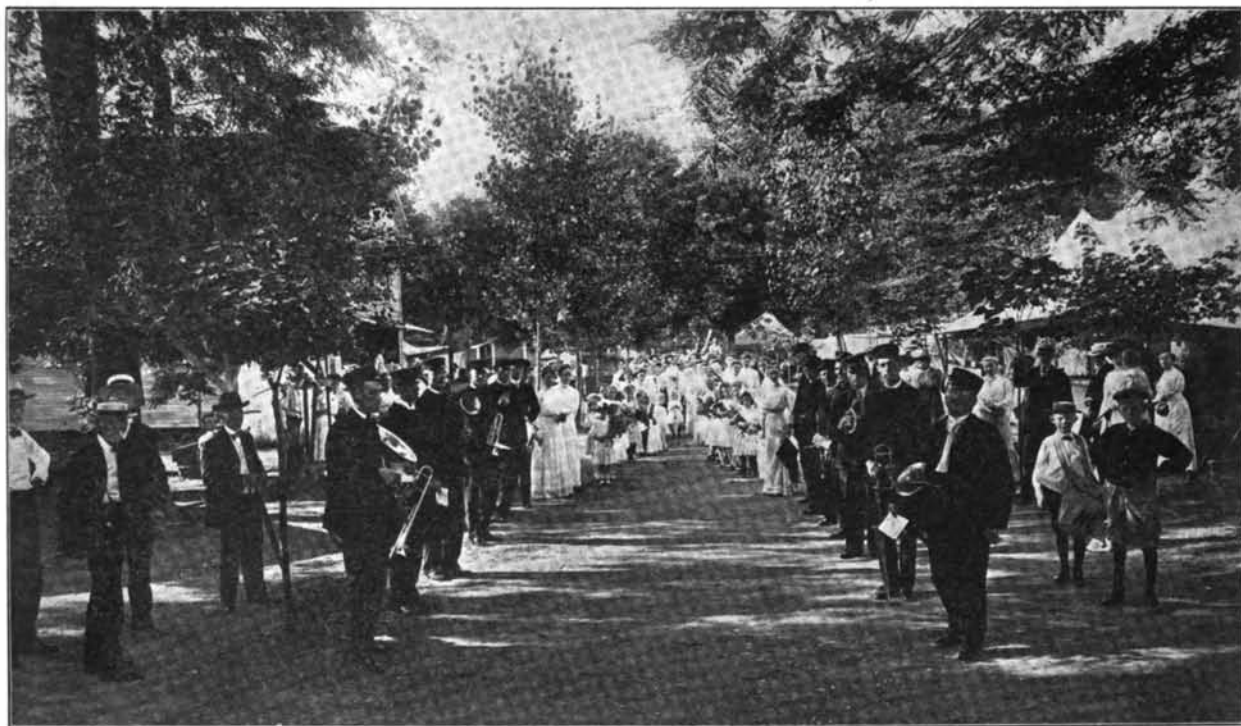
A Résumé of the Work That is Being Done by Dr. Carolyn E. Geisel, Who Represents the True Principles of Health and Hygiene in the Lecture Field

SIXTEEN years ago, Dr. Carolyn E. Geisel, who was pursuing her profession in Kansas City, having received a liberal education in lit-

The Artificial has Eclipsed the Natural

Dr. J. H. Kellogg, in a Parlor Lecture, States that Only Man Needs to be Taught How to Live

THE important thing for every one of us is to learn how to live. How strange it is that every creature in the world except man knows without being taught how to live. There is not a beast on the face of



DOMESTIC SCIENCE CHAUTAUQUA GRADUATING CLASS

erature and medicine, and having exhausted her health in study and the labors of medical practice, came to the Battle Creek Sanitarium, a confirmed invalid. Though reared in a godly home and nurtured in the Christian faith, her experience after leaving home had led her to renounce her faith in religion, so that she came to the Sanitarium a confirmed unbeliever as well as invalid. Here, she soon

Found What She Had Lost,

both her strength and her Christian faith. She became an ardent lover of the principles that had done so much for her, and abandoned her former life.

(Continued on page three)

the earth that does not know what it should eat. Man is the only creature that has to be told what to eat. Yet it is not a complicated matter; it is a very simple thing. One has only to follow closely the ways of nature. But the difficulty is that custom has so changed the established order, so many errors and evil practices have come into vogue that, seeing so many different things on the ordinary bill of fare that are customarily eaten, but were never intended by nature to be eaten, one is confused and fails to perceive any natural instinct to guide him.

Life is Too Artificial.

Natural instinct fails to lead the man in his choice, so he has to

make a selection with no guide but custom and taste.

If little children who have been fed nothing but natural food, having been fed for two years at the breast, as babies are in some countries,—were allowed to choose their food from the great storehouse where there were fruits, nuts, grains, or tender leaves, and from the artificial menus of our hotels, they would choose the natural food. Suppose none of you had ever seen flesh meat on the table, had never seen anything killed, and had never heard of the killing of animals, would it ever occur to you, when you saw a peaceful animal, that you should slay that animal and eat it? A lady told me that she once saw, out in the Samoan Islands, a dog, a chicken, and a child all making a meal of the same coconut, taking turns, first one a bite, then the other. It never seemed to occur to the chicken to eat the dog; and in that case it did not occur to the dog to eat the chicken. Certainly it did not occur to that little Samoan boy to eat either the dog or

and by it gets on the table somehow,—we know not how. I heard of a girl of twelve or fourteen who for the first time went into the country, and saw a cow being milked, and when she found that was the origin of the milk she took at the breakfast table, she was amazed; she had not the slightest idea of how milk was produced.

The average man or woman, certainly the average child, has little if any idea where or how the things they eat are produced. They know little of the awful procedures, the awful institutions that are maintained, the tortures of blood that are pouring because of the slaughter of the animals that produce the meat products found on their tables. There is enough blood shed in the great packing establishments at Chicago every year to float the largest steamship.

Besides the meat products, the most of our food is prepared ready for use in great artificial establishments, whence it comes upon the table, and we know little about its origin; so our natural instincts

rate is one in every thousand—over ten times as great, and in some places more than that.

There is no time in this institution when we do not have people here who are facing death from cancer. The number is increasing so rapidly that it is getting to be a frightful scourge. It is the monster malady that is going to swallow up the race, if something is not done to stop it.

What Are the Causes of It?

We do not know absolutely all the causes of cancer, but two things are thoroughly worked out, and one is that cancer is a disease of civilization, and the other that cancer is a disease of meat-eating races of men and animals. Civilization and meat-eating—those two things work together to produce cancer.

I think the worst thing that civilization does for people is to produce inactivity of the bowels. Read the patent medicine advertisements, and you will find ten of these advertisements are of something for moving the bowels where there is one for anything else. There are trainloads and trainloads of medicines of various sorts that are sold for moving the bowels. Put meat-eating and inactivity of the bowels together and you have the worst combination you can possibly conceive of. Meat is an article that putrefies easily; then through the inactivity of the intestine it is left to decay in the intestine an indefinite length of time, and all the poisons so produced are absorbed into the body, deteriorating, depressing, devitalizing the body, producing disease and degeneration.

That Lays the Foundation for Cancer.

The human alimentary canal is not adapted to that sort of diet. The human intestine is ten times the length of the body, and consequently is adapted to foodstuffs which do not readily undergo decay. Carnivorous animals, the eagle for example, have a very short alimentary canal, only about twice the length of their body; so the eagle is able to live quite a long life on a flesh diet; nevertheless, eagles, vultures, and all flesh-eating birds and quadrupeds are extremely subject to cancer.

Professor Ehrlich, who discovered the antitoxin that cures diphtheria, has been investigating cancer for some years, but he does not publish his results. His assistant published one thing, and that was this: he found he could inoculate cancer from one animal to another. But when he fed mice on a diet of rice, he could not inoculate them with cancer. Cancer would not take, it would not grow; and more than that, he found that when mice had been inoculated with cancer and the cancer had produced large growths, and they were put upon a rice diet, the cancers disappeared. But, the mice died. Professor Ehrlich did not know why, but a committee of English physicians who took up the study have found that those mice did not die from starvation, but they died of beri-beri, the same disease that the Japanese had from eating polished rice. If they had had unpolished rice, I think they would not have died.

But I must tell you a little more about that. Professor Smith of England, I think it was, who made the experiment, found that fine flour bread produced the same effects as



GEISEL HALL, LINCOLN, ILL.

the chicken. They were all satisfied with the same fare.

But we who have learned the ways of the world have gotten away from our natural instincts so far we do not know how to eat or what to eat; we have lost the art of good living.

I said to a little girl one day, "Which do you think is better off, a big, splendid horse that could pull a great load, or a wild horse in a forest?" She said, "I think the wild horse is better off." I said, "Why?" "Well," she said, "because if that great horse was left alone, he would not know any better than to stand with his nose over the fence and starve to death; but if it was a wild horse, he would know enough to rustle around and find something to eat." There is something in that. The domestic horse has always been fed, has always had everything prepared for him, never was educated to take care of himself.

And That is the Way With Us.

A farmer away off somewhere raises the food, sends it on to the miller who grinds it, and the baker makes it into bread, and by

have no opportunity to act in the selection and preparation of our food. If we were left to our instincts they would lead us to our natural diet of fruits, grains and nuts. We have not lost those instincts altogether, and the most important thing and the most valuable thing you can possibly get while here is a knowledge of how to live naturally.

Better Living

is the thing the world needs. The question of how to live is a more important question than any that is before the political world at the present time. Our politicians have not yet discovered that if they do not do something to stop the downward tendency, the degeneracy, the deterioration that is going on, the time will come when there will be no people to govern. Insanity is increasing at the rate of three hundred per cent in fifty years. Other maladies are doubling in twenty-five or thirty years. Heart disease kills four times as many people to-day as it did ten years ago. Cancer is increasing at a frightful rate. Sixty years ago cancer killed nine persons in every hundred thousand. At the present day, the cancer death-

polished rice. So you see we have to renew the battle against fine flour bread. Prof. Sylvester Graham, nearly seventy-five years ago, set out on a campaign in behalf of whole wheat or "graham bread," as it was called. He induced thousands of people to adopt the coarse graham bread in their dietary.

By and by the patent flour millers came, and they said patent flour had all the value of the whole wheat in it. But more recent investigations show that patent flour is not a particle better than the old-fashioned fine flour so far as this point is concerned. It is lacking in lime. The whole wheat contains four grains of lime to a pound, and with the lime the phosphoric acid which is very essential for the building up of the nervous system; but when the flour lacks lime, it also lacks phosphoric acid; it lacks the nerve food elements. The whole wheat contains four grains of lime to the pound, and the fine flour contains only one grain.

thousands who hear her. She goes out under the auspices of the Battle Creek Sanitarium, not to advertise the institution or to solicit patronage, but simply to present the Gospel of Health in terms that the people can understand, and in methods that are available to all.

At first her life was given to slum and rescue work in the great cities, where for years she labored most effectually in the rescuing of women from shame and in work for the temperance cause in connection with the W. C. T. U. For the past ten years she has given much of her time to Chautauqua work, where her voice is heard in powerful advocacy of wholesome living in physical as well as moral matters.

Doctor Geisel is at Home at the Sanitarium, where she is always welcomed and regarded as one of the family. While here she speaks to our large family on many occasions, to workers, and to guests, and her words al-

and included over four hundred public addresses. The field of her work extended from Florida to Wisconsin and from Colorado to New York. At many of the Chautauqua assemblies her work has become a fixture, and she is engaged year after year. In such places there is carried on a School of Health consisting of lectures and lessons on the grounds and a course of reading to be followed up at home. When a class has finished a three-year course it is graduated, and those who have attended the lectures for three years and finished the readings are given certificates of that fact and appropriate badges. The certificates bear the signature of the president and secretary of the Chautauqua and of the School of Health faculty. Buildings have been erected at three different assembly grounds and fitted up especially for this work, and named "Geisel Hall." We present a picture of one erected this year at Lincoln, Ill. The class colors are royal purple and white. During



SCHOOL CHILDREN AT GAINESVILLE (FLA.) CHAUTAUQUA WAITING FOR DOORS TO OPEN

I have alluded to but few of the indications which point us to a return to more natural living, to less of the artificial. The future hope of the race depends upon this.

SANITARIUM PRINCIPLES

(Continued from page one)

doning her lucrative practice and her personal aims and prospects, gave herself to the great suffering world in the name of the Master.

Doctor Geisel is not a robust woman physically, her frame is slight, her strength is limited by years of suffering and invalidism, she has a sensitive nervous temperament that causes her sympathies to be very active, and she does not spare herself when the interests of the people are committed to her keeping. But through the most arduous and weary labors for all these years she has been most wonderfully upheld by the life she has adopted and the principles and methods she advocates, so that her life is in fact a most wonderful testimony to the power of the truths she presents to the many

ways carry weight and influence. Here she rests and recuperates, and observes the onward progress of the work at headquarters, and then goes out again to herald the evangel of health and healing.

Concerning her work and how it is regarded, we present here a clipping from a recent number of *The Woman's World*:

"One of the most valuable women to her race that this country has produced is Dr. Carolyn E. Geisel, A. M. and M. D., possessor of three medical diplomas, member of the health committee of the General Federation of Women's Clubs, national lecturer for the W. C. T. U. health and heredity department, and holder of other offices too numerous to enumerate. She has a magnificent record of four hundred speeches this year, covering the important questions of social, moral and mental hygiene. She has aided in rescue work in various large cities of the world and devotes her entire time and life to the fallen and downtrodden."

Her Work the Past Season

Her work during the season just closed embraced six months of Chautauqua work

the past season nine classes were graduated, containing over six hundred members. Besides the buildings that have been erected especially for this work, there are at least five assemblies that have fitted up lecture and class rooms adjoining the main platform where classes and demonstrations may be held, and the apartments are fitted up with all the conveniences for the work. The work done at these Chautauquas includes public lectures on popular subjects relating to health and hygiene, and classes are held where instruction and demonstrations are given in healthful cookery and general domestic duties, as well as simple nursing care of the sick and what to do in emergencies.

The Popularity of These Lectures

may be perceived when it is said that at the Miami Valley Chautauqua, held near Cincinnati, the attendance the past year averaged over 1,000 persons at the morning classes, and one morning by actual count there were 1,648 present. This, for a class, shows a remarkable interest. At one of the assemblies held this past summer a unique feature consisted of an exhibition of babes

born to mothers who had graduated in the School of Health. There were sixteen of the little ones, every one of them manifesting the clearest evidence of exuberant health. Of nearly every one the mother had some report of precocious health or development that seemed to show they were above the average of children in learning to walk, in talking, cutting of teeth, or some of the points in which healthy babes excel. At another Chautauqua the School of Health included a "Baby Class," consisting of children from three to six years of age. The first year this class numbered ten, last year sixty-two, and this season ninety-two.

One of our illustrations shows the

Graduating Class at Miami Valley Chautauqua

approaching on their way to graduating exercises. The procession was led by a band, and the occasion was a marked feature of the assembly. Of course many incidents of peculiar nature are constantly occurring in an experience that is always changing. But we are gratified at the signs which indicate the permanency of the interest that the people are taking in the great subject of health and proper living.

work of Doctor Geisel. On the contrary, while I have attended but few of her lectures, I have heard on all hands nothing but words of highest praise for the splendid work performed by the Doctor and her able assistants on these grounds.

Coming here three years ago a perfect stranger, except in reputation, Doctor Geisel has, by her noble qualities of head and heart, won a place in the affection of all who have been associated with her either in administration or as hearers. We recall the enthusiasm Doctor Geisel displayed the first year she came among us, and which has not abated one whit since, but grows with each recurring season. In connection with the beautiful building which stands in the east part of the grounds, and which we have to this moment spoken of as the Woman's Building, I want to state now that I am officially authorized to designate the same as "Geisel Hall," and in honor of the founder I ask you to join me in giving her

The Chautauqua Salute.

[This was given enthusiastically.] When the building was first spoken of by Doctor Geisel, she had come to the close of her first year's work with us; she proposed to the man-

work so auspiciously begun three years ago, and successfully continued to this hour. I congratulate the members of this class, and take pleasure in handing you these diplomas as evidence of the study and work performed.

The building is a gem of architecture—constructed of steel and brick with slate roof, well calculated to stand for ages. Three rooms are partitioned off from the auditorium and fitted up completely for the use of model kitchen, nurses, and domestic science.

OVERHEARD FROM PATRONS

A good word at a good time is always appreciated. Its value often can not be reckoned in gold or silver. Such is true of the good words spoken for the Battle Creek Sanitarium and the Battle Creek Sanitarium system in the following interviews with prominent people of this and other countries:

DR. F. ROBERT BOYD, of St. Louis, Mo.: "This is my first visit to the Battle Creek



GRADUATING CLASS, MIAMI VALLEY CHAUTAUQUA

What the Papers Say

The way in which the press treats an enterprise is a good indication of the way in which it is regarded by the people in general. In this case the papers are most cordial in their appreciation of the work that is being done by Doctor Geisel on the platform. Liberal space is given to reports of her lectures and class work. From the Lincoln (Ill.) *News-Herald* we take the following report of a speech delivered by the president of the Chautauqua Association on the occasion of the graduation of the School of Health class numbering about seventy-five:

Mr. Kuhl's Address

Friends of the Chautauqua: As president of the Chautauqua I am asked to present these diplomas. After the inspiring address of Doctor Geisel I am sure that you will not look for any extended remarks from me. The significance of these diplomas is perhaps better understood by those who are to receive them than by the speaker. However, in the intervals of a very busy business life, in my attention to the duties of a member of the board of directors of this Association, I am not wholly uninformed as to the

agement the erection of a woman's building, with a contribution toward the same, and from that has grown the magnificent building—the pride of every one on the grounds. This building which we now see in the concrete, Doctor Geisel saw in her vision three years ago. Her faith made it possible. She returned the second year to find the building idea almost fully developed, plans drawn and interest on the increase. Fortunate, indeed, was the Association in having interested in its welfare a band of women not afraid of any task. Taking their inspiration from Doctor Geisel, they labored early and late to accomplish the work of building. Many of us are familiar with the struggle they faced. On the other hand, they are grateful to the many who responded so nobly to their calls. The glorious results they have achieved are patent to all. To the members of this class now to graduate from the Chautauqua School of Health: Fortunate indeed have you been to sit at the feet of such a teacher as Doctor Geisel, and I voice the sentiments of all within the hearing of my voice, and the management of this Chautauqua, when I say that in leaving us on the morrow we bid her godspeed, and hope for her return a year hence to continue the good

Sanitarium and my first trial of the Battle Creek Sanitarium system; and, while I have been here but a short time, I would like to say that I am more than favorably impressed and pleased. Already I can see a difference in me. Taking everything into consideration, I can say that I am pleasantly surprised. I never expected to find a place where everything is in such good shape for regaining health as it is here."

E. R. MAY, prominent realty dealer and land-owner of Ashville, Fla.: "The Battle Creek Sanitarium and diet suited me so well the first time I was here that I decided to come back again. And so here I am. I can not say too much for the Sanitarium and its system. They have wrought wonders in this world of fakes and fanatics and cures to-day. I think it is the greatest of the great institutions of its kind, and hope to be able to continue coming here every year."

Some weeks ago the following interview was given by Louis Doering, president of the Doering Auto Chair Manufacturing Company, Cleveland, Ohio: "During my twelve weeks at the Sanitarium I have frequently

BAY VIEW QUESTION BOX

Q. What is the cause of chronic diarrhea?

A. An infection of the intestine usually due to putrefactive organisms. These are found in meat and in milk and are often found in water. The infectious germs may also be introduced into the food by flies. Hence, all of these causes should be avoided.

Q. What are the symptoms of floating

kidney? Can it be cured without an operation?

A. When the kidney is movable or floating, it can be felt at or near the liver or the umbilicus, and may usually be pushed up into its proper place with the hand. When the kidney is only slightly movable, the difficulty may be remedied by cultivating an erect position, carrying the chest high and drawing in the abdominal muscles. An abdominal supporter is often of very great use. When

the kidney is sufficiently prolapsed to be properly called a floating kidney, it can no longer be retained in place except by mechanical means. It was formerly supposed that an operation was always necessary in these cases, but experience has shown that it is seldom necessary. In certain cases the ureter becomes kinked so that the urine can not escape, and accumulating, produces enlargement of the kidney and pain, a condition known as hydronephrosis. In such cases an operation is sometimes required.

Q. What do you consider the best diet for a consumptive? Are eggs to be commended?

A. A consumptive should eat fat-producing foods. Cereals or starch-containing foods are best for this purpose. Nuts may also be used in moderation. Fruits should be used very freely, also fresh vegetables. Lettuce and cucumbers are particularly to be recommended. They should be fresh, crisp and of good flavor, and should be eaten with a little lemon juice but without salt and vinegar. Malt honey may be freely used with cream as a means of producing fat. It is of great service for this purpose. The yolks of eggs may be used if found to agree well. They are best taken raw, beaten up with yogurt buttermilk. The latter is also especially to be recommended in cases of consumption. Meat is not necessary, and is doubtless on the whole detrimental.

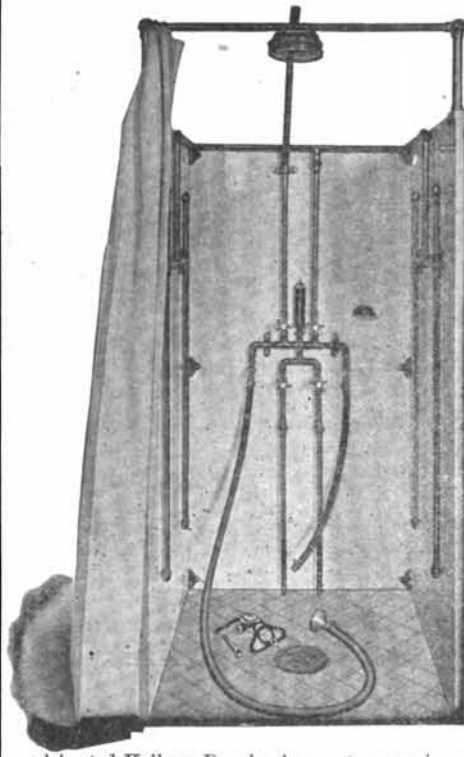
Q. What can be done in a case of epilepsy of a child four years of age?

A. Such a child should be put upon an antitoxic dietary. Meat should be entirely avoided, and salt should be excluded from the food. Water should be freely used. The bowels should be kept active. They should move three or four times a day. The child should be taken to a competent physician, and if the case is not one of defective brain structure a cure can probably be effected by a sufficiently long continued and carefully conducted course of treatment.

Q. Is nervousness a disease in itself?

A. Nervousness is merely a symptom of disease. The nerves are reporters. Intestinal auto-intoxication is the common cause of nervousness.

"The Greatest Tonic in the World"



Q You have still to enjoy the greatest tonic in the world if you are not yet taking a cold shower—rain, needle, or spray—every morning. Nothing in all this wide world can equal it as an eye-opener, appetizer, and invigorator. It makes you all aglow with that fine feeling that life is worth living.

Q Would you pay a hundred dollars to enjoy this luxury in your own home every day for the rest of your life? It sounds incredible, but that is really all you have to invest to secure the KELLOGG HOME DOUCHE, which can be installed in your own bathroom, ready for immediate use at your own pleasure.

Q With your hand in easy control of the water valves, you can take your choice of the shower from above, the needle spray from the sides, the ascending douche from below, the jet or the spray from any position—or combine any and all to suit your royal will, at any temperature you can stand, cold or hot. Truly a royal treat, to say the least.

Q The Kellogg Home Douche gives you in a more convenient form practically the same advantages as the

celebrated Kellogg Douche Apparatus now in use everywhere in sanitariums, hospitals, treatment rooms, gymnasiums, etc. And the Home Douche dispenses with the attendant—you operate it yourself, and get as good results.

Q And if you use it daily, you may steer clear of the day when you have to go to a sanitarium to get water treatment as a cure. Get it now as a preventive—in your own home.

PRICE:

The Kellogg Home Douche Apparatus, complete with attachments for Spray, Fan, Jet, and Ascending Douches.....	\$100.00
Duck Curtain and Curtain Rod, extra.....	10.00
Three Kiln-dried Hardwood Slabs with wood basin and floor drain (the wood basin is to be filled in with cement by your mason), extra.....	35.00
Good Health, Battle Creek, Mich.: Slate Slabs, each, extra (wood slabs just as serviceable).....	15.00
Marble Slabs, each, extra	35.00

I am interested in your Douche for the Home—send me full particulars.

Good Health Publishing Company

Battle Creek, Michigan

ARRIVALS

THE following persons registered at the Sanitarium as guests during the week ending October 1, 1911: Dr. J. H. Carruth, La.; Mr. and Mrs. Chas. W. Carruth, Los Angeles; Rev. W. H. Teeter, Ill.; A. A. Almy, New Mexico; Chas. H. Hodges, Mich.; J. W. Bacheller, City; Paul Reith, Ind.; Jas. Kenan, Chicago; Mrs. Frederick L. Emerson, Mrs. Knowlensberg, Boston; Mrs. R. G. Marsh and Mrs. D. O. Quigley, Detroit; Ad-dis Albrot, New Mexico; Mr. and Mrs. E. Holmes, Kansas; Katherine McCormick, Nebraska; Mrs. J. Slater and Miss C. L. Slater, New York; E. R. May, Jacksonville; D. E. Kellam, Mo.; Hiram Gilson, Ill.; Geo. Strubinger, Ill.; C. L. Stone, Philippine Islands; C. H. Sherwood, Willmar; Rev. Aug. L. Gehrke, Detroit; B. D. Harrison, Detroit; Mrs. Mary J. Hood, Chicago; Miss Elsie Jackson, Chicago; R. S. Thain, Ill.; Dr. F.

Robt. Boyd, St. Louis; Harper Reed, Mich.; Dr. F. A. Phillips, Mich.; Rev. W. S. Sweet, China; R. M. Bradford, Chicago; Mrs. Ben Holbert, Jr., Ia.; Wm. W. Mays, Ind.; J. M. Northrop, Tenn.; Mrs. L. Beatty, Ind.; Mrs. Geo. Pratt, Ind.; A. Youngren, Japan; Mrs. Caroline Parsons, Mich.; Mrs. A. Millican, Japan; J. B. Detwiler and Mrs. Detwiler, Can.; H. C. Wolfe and Mrs. Wolfe, Chicago; Herbert A. Daly, Detroit; A. J. Callaghan, Mich.; W. A. Crampton, Detroit; E. R. Richardson, Tex.; Mrs. Jane Palmer, Nashville, Tenn.; Mrs. C. A. Mound, Mich.; Mr. and Mrs. J. C. Whitmar, Ill.; Geo. W. Cady and Mrs. Cady, Cleveland; Mr. and Mrs. C. M. Brown, Mich.; Sallie Mullen, Barbara Mullen, Mo.; Rev. and Mrs. Aeilts, Little Rock; Rev. Wm. F. Anderson, Chattanooga; Geo. Renner, Buffalo; Mrs. E. L. Peed, New York; Mrs. J. H. Kingman, Mich.; Miss Munro, Can.; Chas. C. Hervey and Louis Doering, Cleveland; Dr. D. H. Kress and family, Washington, D. C.; Wm. F. Aadena, Chattanooga; A. W. Goodenough, Wash.; Eva M. Hall, City; W. T. O'Brien and Mrs. O'Brien, Ohio; Mrs. R. L. Hunt, Indianapolis; C. B. Harner, Ohio; Mr. and Mrs. C. C. Beggs, Ont.; Agnes F. Hubbell, Mo.; Jno. H. Wiley, Mich.; G. M. Reynolds, Chicago; Florence Crilly, Ohio; John Gaston and Mrs. Gaston, Memphis; J. M. Crawford, Tex.; Miss Susie Hooley, Ill.; W. E. Dittenhafer, Toledo; J. H. Kingman, Mich.; W. A. Dooke, Chicago; H. I. Thrums, Ia.; B. Bigsby, Jr., Cleveland; B. E. Miller, Quebec; P. Medemer, Ia.; Martha L. Graebe, Brooklyn; J. M. Perry, Wash.; Miss Brooks, Ohio; Mrs. C. J. Rose, Ohio; Awilda Nicolay, Pa.; Gladys Cole, Mich.; Edw. Mickelson, Ia.; I. H. Williamson and family, Ia.; Mrs. C. R. Denham, Calif.; Mrs. E. Morrison, Mich.; R. J. Cram, Detroit; Elizabeth H. Muncie, M. D., Brooklyn; Dr. Watkins, Chicago; Benson Bakee, Kans.; S. I. Hunter, N. C.; F. N. Rood, Ill.; Chester L. Wise, Pa.; T. R. Glass and wife, City; Thos. E. Kaine, Ind.; Mr. and Mrs. U. A. Gilbold, Jr., Chicago; O. L. Weil, New Orleans; Mr. and Mrs. W. F. Hand, Miss.; Bernice Carey, Ind.; E. M. Bowman, Chicago; John Maylen, Va.; W. L. Pate, Miss.; E. Gilbert, Mich.; R. G. Smith, Mich.; Mrs. H. B. Brent, Kansas City; H. Ziesel, Chicago; Chas. C. William, Chicago; Samuel Adams, Birmingham; J. A. Lamont, Chicago; Laura E. Goll, Ohio; Eleanor C. Welsh, Ohio; Alice M. Robertson, Muskogee; Mrs. Doreas Murphy, Ohio; Mr. and Mrs. F. C. White, New York; F. D. Claggett, Curtis; Mr. Shofer, Detroit.

News and Personals

Dr. George E. Ranney, a prominent practitioner of Lansing, Mich., is here for a few weeks' treatment and recuperation.

A. A. Almy, a well-known realty dealer of Denning, W. Va., will be among the Sanitarium guests during the next few weeks.

E. R. May, real estate dealer, of Ashville, Fla., arrived during the early part of last week to spend a couple of weeks. Mr. May has been here before.

C. W. Carruth, a traveling salesman from Los Angeles, Cal., is a guest for a short period. This is Mr. Carruth's first visit to the Battle Creek Sanitarium.

Miss Manns, of China, a former patient of the Sanitarium, is greatly improved in health and has returned to China, sailing from San Francisco Sept. 6.

G. R. Renner, a newspaper man of Buffalo, N. Y., is among this week's guests. Mr. Renner is very much impressed with the Battle Creek Sanitarium and the Battle Creek Sanitarium system.

Rev. W. S. Sweet, of Hangechow, China, is here for a couple of months' stay in search of health. The Battle Creek Sanitarium was recommended to Mr. Sweet by William Axling, an old friend, now in Tokio, Japan.

Mrs. (Dr.) Harry Knapp and daughter, Helena, formerly of Porto Rico, arrived from New York last week to spend a few weeks with Mrs. J. H. Kellogg. Doctor Knapp has been here for the past few weeks.

Hon. Chase S. Osborne, governor of Michigan, is a friend and patron of the Sanitarium and frequently calls when passing through the city. He took dinner with us last Monday, and expressed his kindly appreciation of the work the institution is doing in relieving the sick and suffering.

Among the many capitalists and manufacturers making the Battle Creek Sanitarium their home for the next few weeks are George W. Cady, shoe manufacturer of Lakewood, Ohio, and J. B. Detwiler, of Brantford, Pa.

Rev. and Mrs. A. Youngren, missionaries to Japan, whose home formerly was in Chicago, are making a short stay here. They are home on furlough, and expect to visit a good portion of this country before returning to the field of their labors.

On Tuesday evening Mr. R. S. Thain, of Chicago, gave a most interesting lecture in the Sanitarium gymnasium on the subject of "Modern Irrigation as Applied to the Highest Type of Commercial Orchards in the Pacific Northwest." The lecture was well illustrated by views of the orchards of the Pacific Coast region.

Dr. W. F. Martin, accompanied by his family, spent a few days last week in Chicago. Doctor Martin was in attendance upon the annual meeting of the American Urological Association. He reports a most profitable meeting. Great advances are being made in this branch of medical science. Mrs. Martin and daughter were guests of R. F. Greenlee, Esq., and wife, who are friends and patrons of the institution.

Among the ladies at the Sanitarium this week are Miss Martha Graebe, a missionary to Raipur, C. P., East India, who is here with her mother, Mrs. Martha Graebe, of Brooklyn, N. Y.; Miss Mary Brooks, a



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teacher, of Granville, Ohio; Miss Susie Hooey, a graduate nurse, of Abingdon, Ill.; Mrs. J. H. Kingman, wife of J. H. Kingman, undertaker, of Sturgis, Mich.; Mrs. D. C. Quigley, wife of a marine engineer, of Detroit, Mich.

Dr. D. H. Kress, of Washington, D. C., with his wife and daughter, all accredited physicians, spent a short time at the Sanitarium last week, en route to Southern California. Doctor and Mrs. Kress were formerly connected with the Sanitarium for a number of years, as members of the medical staff, earning the respect and deep regard of a host of friends. They were the guests of the Sanitarium doctors, and a dinner was given in their honor.

On Wednesday afternoon the bulletin board announced: "Doctor Geisel wants to see all the lean people in the parlor at 3:00 p. m." Curiosity brought a large crowd of people together. The speaker gave three remedies for leanness: rest, food, and joy. All sorts of questions were fired at the Doctor. One was, "What shall I eat?" to which she replied, "Eat calories." Another was, "Must thinking be listed among too vigorous exercises?" In answer to this Doctor Geisel quoted Shakespeare: "Avoid Cassius, he hath a lean and hungry look; he *thinks* too much."

On Thursday evening Dr. Carolyn Geisel lectured in the parlor to a large and deeply interested audience. Her subject was, "The Blot on the Brain; or, How Much is Your Father to Blame?" She spoke of the increase of mental degeneracy, insanity, imbecility, epilepsy and criminality, and asked of her audience the pertinent question, "Why?" Her reasons were: First, bad inheritance; and, second, imperfect environment. With all her natural persuasiveness she then advocated the following remedies: *Legislation*, co-operation with the people, the State working with the individual; and *Education*. There are schools for agriculture, but no school for fathers; schools for arts and sciences, but no school for mothers.

Several medical missionary students have been working at the Sanitarium during the summer in the treatment rooms and various departments. They have now returned to their medical studies in Chicago. It is expected that many of them will be here for the Christmas vacation and to attend the Medical Missionary Conference which will be held here in the early days of January, 1912. The medical students recently spent an enjoyable evening at the residence of Dr. J. H. Kellogg, where they also met some of their former professors. The evening was filled with music, social intercourse, and an interesting talk from the host of the occasion in which he gave encouragement and an earnest appeal to his guests to live up to the high ideals with which they had entered upon their medical studies.

On last Saturday evening a large and deeply interested audience gathered in the gymnasium to spend what proved to be a most enjoyable hour with Prof. Robert

Irving Fulton, dean of the School of Elocution and professor of oratory in the Wesleyan University, Delaware, Ohio. Professor Fulton is a great favorite with the Sanitarium family on account of his genial and kindly spirit as well as for his talents in his profession. The program of the evening was well selected from a large amount of available material, and included a wide range of character, from the tragedy of Macbeth to the light spirit of college days reminiscences. The audience was delighted. The entertainment was under the auspices of the Nurses' Association, and the funds will be contributed to the benefit of disabled nurses. The proceeds netted the neat sum of over one hundred dollars, the services of Professor Fulton being generously given for the occasion.

One of the pleasant features of Sanitarium life is the afternoon prayer service, held daily in the fifth-floor parlor at three o'clock to half-past three. The object is to offer prayer for the recovery of the patients. There is no doubt in any devout Christian mind that prayer is a strong factor in the recovery of the sick. The institution is Christian. While the so-called "faith-healing" and Christian Science methods are not encouraged or approved, simple faith and confidence in the care of our Heavenly Father of itself brings great relief; and in the recognition of the divine power as the source of all healing, this service is designed to give tangible expression to such belief. Christian people of all denominations unite in these services, and are always made welcome. Many testimonies like the following from a prominent physician and patient are presented at these services, either by letter or voice: "I wish to return thanks to Almighty God for his great goodness to me in bringing me through my operation safely: I thank him for the careful skill of the surgeons and nurses, and for the entire institution. I believe I was led here in answer to prayer. May God's blessing rest upon the institution and its great work in relieving human suffering."

One of the recent distinguished visitors at the Sanitarium is Dr. Elizabeth Hamilton Muncie, of Brooklyn, N. Y. She is visiting two friends, lady physicians, who are under treatment in the Sanitarium, one of whom is Dr. M. Belle Brown, former dean of the New York Medical College for Women, who has just passed through a very critical operation, and the other Dr. Elizabeth Corwin, of the Corwin Sanitarium of Binghamton, N. Y. Doctor Muncie has been in Chicago, where she presided over a convention of surgeons and physicians. She also read a paper before the Association on "Sensuality or Sexuality—Which?" This was followed by a debate, the result of which is to be given in her address before several important societies that are taking up the subject of sex hygiene, among them being the Massachusetts Sunday School Convention and the Sixth International Purity Congress which meets this month in Columbus, Ohio. Doctor Muncie is not only well known as a surgeon, but also as a lecturer and author. Her latest book, "Four Epochs of Life," is having highest

commendation from prominent persons in this country and in Europe. The Sanitarium family much enjoyed her talk in the Sunshine Hour on Sunday, when she spoke upon "Spiritual Joy versus Physical Happiness."

There has been recently started in Battle Creek a unique movement among the women of the different churches of the city, the object of which is to develop a closer union and to promote acquaintance among the Christian workers of this town. To this end it is proposed to hold an annual union meeting of all the women's missionary societies of this city, in which is included the missionary department of the Sanitarium. The first of these annual meetings is to take the form of a jubilee to celebrate the completion of fifty years of organized women's work in foreign lands. It will be held October 19th and will be an all-day meeting, the first two meetings of which will be held in the Sanitarium chapel, and the evening meeting in one of the downtown churches. Strong missionary speakers, representing different fields and denominations, are expected, and each meeting will be of a specially interesting character. It is expected that the evening meeting will open with a fine display of moving pictures representing scenes in mission lands, and followed by an address from a well-known worker.

Sanitarium Postcards

A series of beautiful illustrations of familiar features and scenes about the Sanitarium, taken by our own artist. Select from the following list. Prices, two for five cents, one dozen for twenty-five cents, sent to any address. Order of the Sanitarium, Battle Creek, Mich. They may be ordered either by number or title.

- 1 Bird's-eye View of Sanitarium.
- 2 Sanitarium in Winter.
- 3 Gents' Bath.
- 4 Gymnastic Drill.
- 5 A Winter Night Scene.
- 6 A Winter Night Scene.
- 7 The Front Entrance.
- 8 Receiving Physician's Office.
- 9 Phototherapy Department.
- 10 Blood Test Laboratory.
- 11 Ladies' Bath-rooms.
- 12 Vegetable Greenhouse.
- 13 Corner in Gastric Laboratory.
- 14 X-Ray Laboratory.
- 15 Gymnasium.
- 16 Front Entrance of the Sanitarium.
- 17 Main Building from the College.
- 18 East Hall.
- 19 Palm Garden.
- 20 In the Greenhouse.
- 21 The Main Parlor.
- 22 The Main Dining-room.
- 23 West Hall.
- 24 Northern View of Sanitarium.
- 25 Cooking School.
- 26 Nurses at Chapel Exercises Easter Morning.
- 27 Universal Strength Test.
- 28 Breathing Exercises.
- 29 Breathing Exercises.
- 30 Breathing Exercises.
- 31 Breathing Exercises.
- 32 The Kitchen.
- 33 Palm Garden Pharmacy.
- 34 Lady Nurses' Dormitory.
- 35 Bath-room Treatments.
- 36 College Building.
- 37 View of the Rear Lawn.
- 38 View from Front Entrance.
- 39 Southern View of Sanitarium.
- 40 Ladies' Indoor Swimming Pool.
- 41 Nurses' Graduating Class, 1910.
- 42 Gymnasium and Bath-rooms.
- 43 Nurses' Graduating Class, 1911.
- 44 Main Building (from College Lawn).
- 101 Sanitarium Annex.
- 102 Sanitarium Annex, from South Lawn.
- 103 The Annex, South Lawn.
- 140 Sanitarium Annex, from Southeast Lawn.
- 105 Sanitarium Annex, from North View.
- 106 Sanitarium Annex, Southeast View.

THE BATTLE CREEK IDEA

VOLUME IV
NUMBER FORTY-FIVE

FIVE CENTS
A COPY

PUBLISHED WEEKLY AT BATTLE CREEK, MICHIGAN. OCTOBER 13, 1911

The Electric Light Bath

An Improvement on the Old Turkish and Russian Baths—It Affords Strong Penetration of Light as Well as Heat

THE electric light bath which was originated in this institution is very superior to the Turkish bath and to the Russian bath, because it is not simply the application of heat to the surface, but the penetration of light to the interior of the body as well. The radiant energy, the luminous light rays, pass
(Continued on page two)

Questions and Answers

Dr. A. J. Read Replies to Sundry Queries Propounded by Patients

QUESTION. Is the thorough insalivation of yogurt buttermilk necessary?

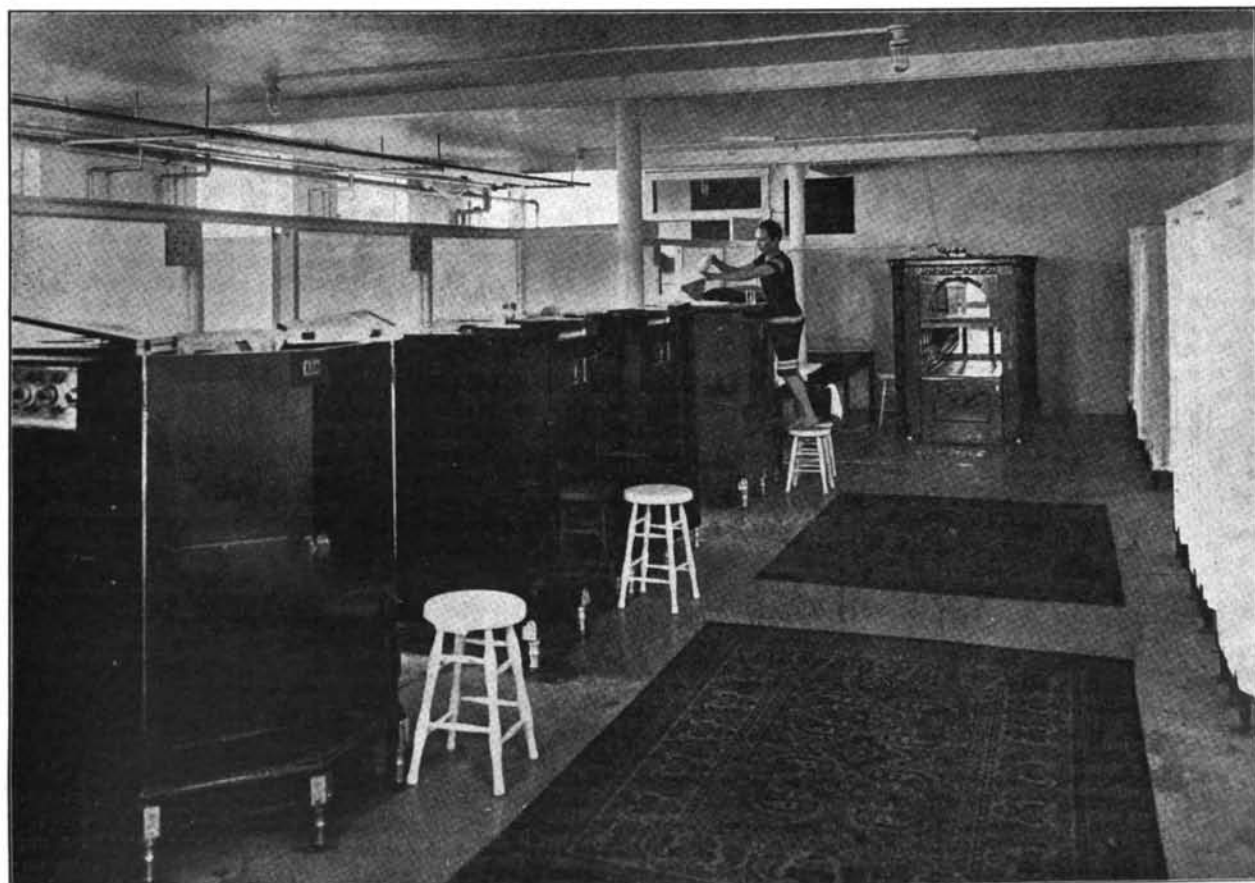
ANSWER. No, it is not necessary to chew buttermilk at all. Buttermilk and water do not need to be fletcherized.

Q. Should a person who is too thin eat fats in order to gain in weight? and should
(Continued on page three)

WHY NOT LIVE ONE HUNDRED YEARS

Dr. J. H. Kellogg Tells His Patients of the Source of Death, and of the Life-Preservers

ONCE more we are to discuss a question of perennial interest—How to live well and long in a world in which we are surrounded by dangers that threaten our lives. Life is a battle. We must fight for our lives. And, fortunately, this battle is for the most part carried on without our knowledge and without our wills. Every moment of our lives



IN THE ELECTRIC LIGHT BATH DEPARTMENT

there is a fierce conflict waging in every portion of our bodies. We are surrounded with enemies; we are invaded by enemies. A microscopic examination of the surface of our bodies would show that on every minute portion of surface there are millions of bacteria seeking to penetrate, and they are continually penetrating our bodies; and if examination were made of the lining skin, the mucous membrane, of which there are seven square feet of surface, we should find the very same thing there—the mucous membrane covered over with venomous germs that are seeking to get into the citadel of life.

In the Interior of the Body,

in the intestines, there are produced every day not less than three hundred trillions (a trillion is a million million) of these poison-forming bacteria. Great numbers of them find their way into the blood; they are carried to the liver, the liver destroys them and eliminates them. If it were not for that fact, we could not live an hour.

The bacteria that find their way in through the skin, and there are living cells ready to capture them; they are swallowed and destroyed; and if it were not for this army of sentinels that are always ready to fight for our lives and defend us, we would very soon be wiped off the face of the earth by these multitudes of microbes that are continually assailing us. So you see the thing of greatest importance to every one of us is to know how to keep these living sentinels, the white cells that are found in the blood, and the connective tissue cells, at the point of highest resistance.

A Soldier, to be Ready to Fight,

must be well fed, must be well equipped with arms and know how to use them. It is exactly so with these living cells. A living cell, in order properly to be equipped for its battle, must be in the first place a robust cell, full of vitality, well fed, equipped with good health, having normal blood to build it up so that it shall be vigorous and ready and able to endure a continuous fight, for life is one continuous battle. We die only when we can no longer fight.

Another thing that the cell needs in order to carry on its fight properly is to be well armed.

How Does a Cell Fight?

That thing was not understood until recently, but within recent years it has been learned that a cell fights with an antitoxin. Germs kill us by means of the poisons which they create in our bodies. When a man has typhoid fever, it is because the typhoid fever germs that are growing in his body are making a poison which when circulated through the blood causes the temperature of the body to rise and produces fever. Diphtheria kills a child because it produces a poison which when circulating in the blood not only raises the temperature but produces paralysis.

Cholera kills a man who has it because the cholera germ produces a poison which causes the body to pour serum into the intestine, so that the blood becomes thicker and thicker until by and by it will no longer circulate. That is true of all infectious diseases. They kill by producing poisons. The way in which

the body defends itself is by making antidotes for these poisons, and every living cell has the power to make an antidote which will kill germs. But it is only when the cells are intact, when they are healthy, that they are able to do this.

Now let me show you what application these simple facts have to our daily lives. Here is a man, for instance, who does not breathe deep enough, he does not use his lungs properly. A man sits down in a rocking chair with the lungs collapsed, gasps a little now and then, but does not get enough oxygen into his blood, and the consequence is the blood-cells become asphyxiated, and all the body cells become asphyxiated.

The decay that takes place in this putrescible material produces certain brownish coloring matters which are absorbed into the blood. By and by the body gets worn out in its efforts to destroy these poisons, the glands undergo degeneration, and

Brown Spots on the Hands

are an evidence that degeneration has taken place; because so long as the body can possibly maintain its work in destroying these poisons, it will do it. When you find those brown spots on the hands, it means not only that the suprarenal capsules that destroy this brown coloring material are degenerated, but the thyroid gland has also degenerated. We can not restore those glands that are gone. The only thing that can possibly be done is to advise that person to live on the purest diet obtainable, so that there will be just as little work as possible for these glands to do. That is the way we get old. We would never grow old at all, we might live five thousand years, if we could only keep our antitoxic glands intact.

When you tie a string tightly around your finger, it turns black because the oxygen is no longer supplied to the finger; the oxygen is used up and the finger is being paralyzed, asphyxiated, and is dying. When a cell is asphyxiated it can no longer battle. It is like a man whose hands, arms, and legs are frozen, who is intoxicated with alcohol or stupefied with an anesthetic.

That is why people get consumption by living indoors.

Consumption is an Indoor Disease,

and it comes because our vitality, our resistance, is lowered by our not getting oxygen enough. Suppose one is eating a diet which produces poisons, such as mustard, pepper, peppercorn, ginger and things of that kind, and thus circulates them in the body, these poisons destroy the activity of the cells so they are no longer able to make antitoxins and so no longer able to fight off germs.

The danger in eating meat is not in the meat itself, but in what happens to the meat after it gets into the body. To be sure, meat is an inferior food, and I believe in "living on the top shelf," just as high as I can; I believe we should eat the very best things we can get hold of, so I would not eat flesh, a poor, miserable diet, when I could get something a great deal better. Meat is a very poor kind of food, because it is unnatural, and it is second-hand diet. The animal has eaten the corn and the grass, and it has used them for its own purposes. The pig,

for instance, has eaten corn and rolled it around in the mud for six months, and should I eat that pig, I would only get the corn at second-hand, all soiled and polluted. I am not getting good, clean corn. I would rather have my corn before the animal has it.

But That is Not the Worst of It.

There is something a great deal worse than that. Part of the animal is digested in the body, and that does not hurt one so very much; but the part that is not digested, that lies around in the colon, undergoes decay and putrefaction, is the part that does the harm, because when this material is absorbed into the blood it does the same harm as eating decayed flesh would do.

That is very plain talk; it is not pleasant to hear at all, I know, but it is not worth while to say things unless I can say them in such a way that people will remember, and I would like to get this thing before you in such a way that you could never forget that if one is eating the flesh of a dead animal, he is eating something that is on the way to decay. The food was at its purest, sweetest, and best in the corn, and the beast ate it and let it down, and it is now on the way down, back to dust again.

THE ELECTRIC LIGHT BATH

(Continued from page one)

through the skin and permeate the body to the depth of two or three inches. Impressions have been made upon a sensitive plate after the light had passed for more than two inches through the human tissues, so with the electric light bath the whole interior of the body is illuminated. In the sunlight, our bodies are filled with light, provided we wear light clothing, but if we dress ourselves in black clothes, then, of course, the light can not penetrate; but white clothing is easily penetrated by the rays of light to a very considerable degree. All know the difference in the condition of a room with white curtains or one with black curtains. With black curtains at the windows, the light will be almost entirely excluded although the curtains may be thin, whereas white curtains of the same texture and thickness will allow a large amount of light to enter. The same is true of the skin. It is more or less permeable to luminous rays of heat and the actinic rays of the sun.

The application of the electric light bath is

Tonic as Well as Eliminative.

It is also derivative. Many people, especially those who have suffered for many years from intestinal autointoxication, have a dry skin, and the reason why the skin is dry is that the thyroid gland is degenerated, because it has had such an enormous quantity of toxins to deal with. It is poisoned and has finally become degenerated. An overworked gland, or an overworked organ always degenerates sooner or later. A man who overworks his muscles, after a while gets degenerated muscles. When the stomach is overworked, it undergoes degeneracy, and while at first it makes an excessive amount of gastric juice, after a while it makes no gastric juice at all; its glands have degenerated. The same thing is true of the thyroid

gland. Its duty is to destroy toxins, poisons taken into the blood. When these poisons are taken in in excessive quantity, the result is degeneracy of the gland.

The Activity of the Skin

is due to the influence of the thyroid gland. When the thyroid gland is active, the skin is active. When the thyroid gland degenerates, the skin becomes dry. One purpose of the electric light bath is to tone up the skin; that is, it excites the blood-vessels by creating a circulatory reaction, so that the blood will be fixed in the skin. The skin is capable of holding two-thirds of all the blood in the body. Ordinarily in cases of chronic disease, the skin contains not more than one-tenth part as much blood as it may contain. Persons whose skins are pale and sallow, and that is true generally with those suffering from chronic disease, have too little blood in the skin, and consequently there is a great excess of blood in the brain and internal organs; and one way in which this excess of blood can be relieved is by getting more blood into the skin. The electric light bath is a very effectual means for accomplishing this. Anybody who has a pale, dry skin should know that that means disease of the liver, disease of the kidneys, of the blood-vessels, or some other internal trouble, and premature death. No one should allow such a condition to exist. The skin should be active, moist, smooth and slightly oily. Those are indications of a healthy condition of the skin.

The Sanitarium makes much use of the electric light bath in various forms. The large illustration shows the electric light bath department with several cabinets. In one of them a patient is being placed with a cold towel about his head. One bath is adapted to the reclining position, and is for weaker patients. Other illustrations show the smaller lights used for local treatments. These are very useful in relieving pain and in many other therapeutic measures.

QUESTIONS AND ANSWERS

(Continued from page one)

a person who is too fleshy abstain from fats in order to lose in weight?

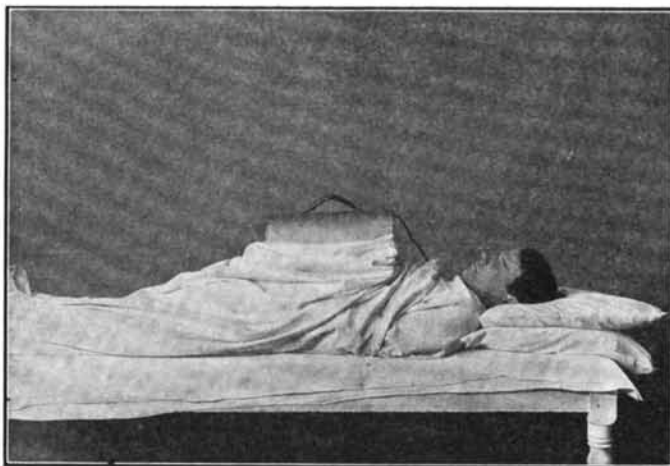
A. We can answer both of these questions in the negative. Obese people often have a very great fear of the use of fats, and there is a very popular idea that the use of fat will make fat. That is true only to a limited extent. Starchy foods which are well digested are much more productive of fat than the fats themselves. Some cases are improved by the use of fats. It depends upon the digestive condition; so that the quantity of fats used would have to be determined by the individual case. For example, a person who has an excess of hydrochloric acid may be thin from the lack of ability to properly digest his food; and the use of fat in that case might correct the digestion and balance it up so that the individual would gain weight by the use of fats. On the other hand, an individual with the same kind of stomach trouble might also have obesity. It is a question of balance between intake of food and output of work.

Q. Is it wise to take exercise immediately after eating?

A. This question must be answered like the previous one. There is one class of people who should rest after eating. It is absolutely prohibited for them to take vigorous exercise immediately after eating. Most people may take mild exercise after eating. There is another class of individuals who

Q. What are the causes of and what is the cure for chronically irritated bronchial tubes?

A. Chronic irritation of the bronchial tubes is probably the result of autointoxication. People who have trouble of that kind are usually those who are loaded up with toxic products from overeating, eating food out of balance,—too much protein, or some other



LOCAL APPLICATION OF ELECTRIC LIGHT

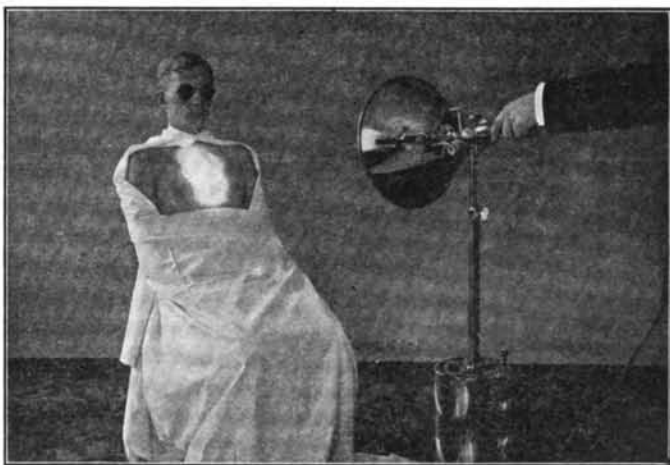
need considerable exercise after eating. Gymnasium exercises, long walks, or hard manual labor immediately after eating are undesirable for people who have excess of hydrochloric acid. But cases that have too little hydrochloric acid, or perhaps it may be practically normal, can take the exercises with great benefit, because this exercise aids the secretion and action of the viscera in passing the food along.

Q. What ought one to do who wakes up with the head stuffed as with a cold?

derangement of the diet, and I would recommend first of all getting that matter corrected.

Q. Do not beans and peas contain too much uric acid to be healthful?

A. No; if eaten in moderation, they are a very healthful article of diet. Beans that have been hulled are very much more wholesome than beans or peas with the hulls on. A great many housewives now have taken to the plan of hulling beans and peas, much as corn is hulled, and removing the outer skins.



CHEST TREATMENT BY POWERFUL ARC LIGHT

A. A person who wakes up thus is suffering from a condition of the nose which may not be a cold at all. The probabilities are that this is a disease of the turbinate bodies of the nose, and the individual needs to consult a nose and throat specialist.

It is surprising what a large amount of outer skins can be removed from the beans in passing them through a colander. After preparing them in this way, they may be baked in the ordinary way and are a very wholesome dish. Many people who can not use

beans as a diet otherwise, can use them very well in that way. The amount of uric acid which they contain, or uric acid-producing substances, is not prohibitive at all, and they can be used quite readily and are much better than most other protein foods.

tation of the abdominal sympathetics, the solar plexus and lumbar ganglia, and the reflexes in the back of the neck produce the symptom of which you complain. Straighten up when reading. There is nothing about the reading itself to do it.



"WHEN THE FROST IS ON THE PUNKIN, AND THE FODDER'S IN THE SHOCK"

Q. Why and how does reading for a short time make the back of my neck stiff, even though my glasses are fitted properly?

A. The stiffness and pain in the back of the neck is a reflex symptom; the individual is suffering from the position which he occupies when reading. The cramped position of the abdomen immediately starts up an irri-

Q. What are the indications when the white cells are greatly above normal?

A. When the white cells of the body are greatly above the normal, it indicates one of two things: either you had been eating before the blood test was made, or else you have an infection somewhere in your body that needs attention. That infection may be in

the intestinal tract, may be in the skin; there may be a little abscess that you had overlooked as a very slight affair, but it is sure to show in the increased number of white blood cells.

Q. What is the difference between rheumatic gout and arthritis?

A. The difference is quite marked. Rheumatic gout, or chronic articular rheumatism, is a constitutional disease affecting the joints of any part of the body and producing great deformity. Exposure to damp and cold and bad diet are the causes. Arthritis simply means inflammation of a joint of the body from any cause, and often is not constitutional at all, but should always receive attention, such as fomentations, heating or evaporating compresses, as continued inflammation may destroy the joint.

Q. Does the sunshine have a curative effect upon the skin?

A. Yes, the skin needs sunshine. It is made as a protection for the body. And when we protect the protector, the skin becomes partially useless by over-protection; and the direct sunlight upon the skin really stimulates the skin to greater activity. It also improves the condition of the blood. We have actually found that by exposing a patient's body to the sunlight, we can get an increase in the red blood cells of from ten to twenty per cent in four weeks' time.

Q. In what position is it best to go to sleep?

A. I think it makes very little difference what position a person assumes in sleep so far as the digestive organs are concerned. I would recommend a person lying in whichever position is the most comfortable to sleep, and if you feel like changing that position at any time during the night, you are at liberty to make any change you wish. For that reason it is best for each individual to have a bed all to himself, so that he can turn as he wishes.

A WIDE-AWAKE REFORMER IN AU SABLE CHASM

MR. W. M. MOONEY, of W. M. Mooney & Co., manufacturers in Au Sable Chasm, N. Y., writes us as follows:

"TO THE EDITOR: When I began taking the BATTLE CREEK IDEA and *Good Health*, I used coffee, meat, pepper, salt, pies, cakes, doughnuts and many other objectionable kinds of food, and ate carelessly. But now, by the help of Doctor Kellogg, Chittenden, Fletcher and Fisher, I have abandoned all this and am one among the millions who has abandoned coffee, meat and all the rest of this trash. It is estimated that there were 860,414,000 pounds less of coffee used in 1910 than were used in 1902. Now, if we can make the same progress in all of our bad habits, it will pay to keep hammering away at the Battle Creek Idea. I am under that banner.

"But this is not what I started out to tell you. It was to tell you that Au Sable Chasm is in New York State, and not 400 miles south in New Jersey, as you have it."

We are much obliged to Mr. Mooney for

calling attention to our error respecting the location of the picturesque town of Au Sable Chasm; and also for the encouraging facts to which he calls our attention, both as regards the lessened use of coffee, which is certainly something to rejoice in, and also the fact that he has personally become convinced through a study of the subject of better living to make such a radical change in his habits. We hope many more of our subscribers have had similar experience, and feel sure that every one who tries the experiment in a consistent and persevering way will agree that no undertaking which one can enter offers better returns for the effort put forth than exchange of wrong habits of living for better ones.

DEDICATED TO THE BATTLE CREEK SANITARIUM

It has been ver' kind to me—
This old "San" of Battle Creek,
Where meself himself expected
To get rid of being seek.
But it's virry far from funny to retire from the world,
To be stuffed with "malted honey" and in water to be swirled;
To be sprinkled like the flowers by a "son of Neptune" bould,
Who can make his little rain-drops scalding hot or freezing cold.
Yet it isn't bad at all when the habit's once acquired,
When the appetite increases and the loongs are both inspired.
We are learning iv'ry day just the proper sort of way
To live on to be a hundred-odd before we pass away—
(Put the accent on the "odd" if you can not well condone
Antitoxic rules of leaving meat and condiments alone).
It's endurr'ance we arr' after and efficiency, of course,
Not the ginger of a fractious colt or hal-luf-broken horse.
Now, then, drink a toast with me—
Yogurt toast of quality—
For the virry great, big goodness
Which this place has been to me.
Signed: AN EX-PATIENT.

TWILIGHT—A SONNET

BY STANLEY MCCORMICK

THE golden sun sinks slowly in the west,
And crimson tints adorn a cloudless sky
With hues more gorgeous e'en than those
which lie
So fondly on the rainbow's arching breast
When storms are o'er, when tempests are at rest;
The din of life grows faint and fainter still,
As twilight fades beyond some western hill,
And leaves the earth in sable garments drest,
As though the hour of final doom had come.
But ah, there is a charm in twilight's ray,
A voiceless language in the wind's low hum,
That thrills the heart and will not die away,
E'en when the anxious spirit longs for some
Bright realm where love and nature ne'er decay.

ARRIVALS

THE following persons registered at the Sanitarium as guests during the week ending October 8, 1911: Jno. A. Clemenson, Iowa; L. A. Wood, New York; H. F. M. Lochlin and wife, Ottawa; Kathryn Yates, Ind.; A. M. O. Connor, Indianapolis; C. Wood Beechy, Md.; Chas. Hodges, Mich.; Paul S. L. Johnson, Brooklyn; Mrs. S. P. Hall, Tenn.; John W. Hall, Tenn.; Miss Annie Bills, Mass.; C. W. Linnock, Ga.; E. C.

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The demand for Nurses who are trained in the Sanitarium principles and methods is constantly increasing, both in the institution and outside. A good salary awaits those who finish the course.

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Battle Creek, Mich.

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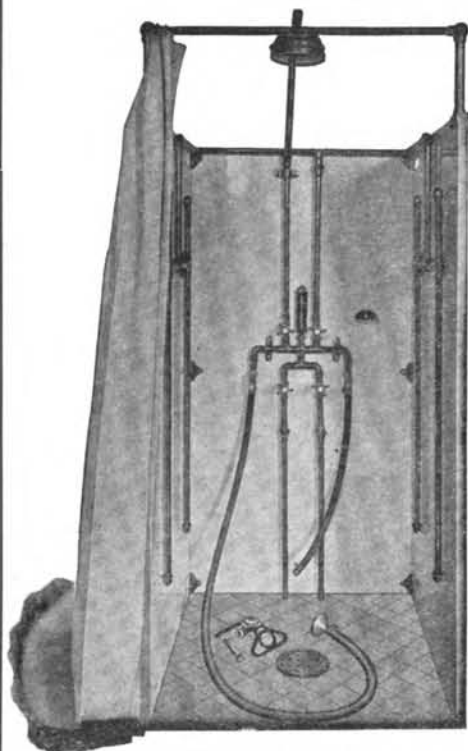
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Bowly, Mich.; Wm. Burtless, Mich.; W. H. Weston, Boston; T. Kelsey, Mo.; J. Carter, Mo.; Stella A. McGangle, Kans.; Harper Reed, Ind.; Virginia Lewis, Ia.; Geo. P. Minake, Mass.; Mrs. J. P. Ross, Tex.; Mrs. M. Morne, Tex.; F. M. Sprague, O.; Mrs. F. M. Sprague, O.; C. F. Moine, Mich.; Horace Inman, Amsterdam; Ella E. Pohli, New York; Mrs. Geo. W. Jones, Ill.; P. B. Tingley, New York; F. D. Kaldersburg, New York; O. F. Chandler, Chicago; Mrs. J.

Hines, Mich.; Mrs. E. C. Hale, Mich.; C. J. Roth, Ia.; H. R. Culbertson, Ind.; A. C. Hilderbrant, Wilmington; Mrs. A. C. Hilderbrant, Wilmington; W. F. Phillips and wife, Ia.; H. R. Bowman, Chicago; Sam'l A. Walcott and Mrs. Walcott, Tex.; Mrs. J. E. Rumbough, N. C.; Samuel Adams, Dr. and Mrs. D. C. Rood, Duluth; E. McAustin, Port Huron; Mrs. Chas. A. Batchelder, Minn.; Mrs. K. D. Chase, Minn.; H. C. Akeley, Minneapolis; Chas. Bishop and wife, Japan;

C. T. Mentzes, Pa.; Jessie B. Phillips, Ia.; Mrs. H. C. Bake, S. Dak.; Geo. A. Harkell, Tex.; C. R. Buchanan, Grand Rapids; Rev. W. H. Shellabear, Ohio; L. Hoffman; Mrs. Edwin T. Hamilton; Arthur Chatterden; W. G. Shellabarger; C. O. Lyon, New York; Franklin Moore, St. Clair; J. I. Prentice, Buffalo; R. A. Carvin, Mich.; R. J. Cram, Detroit; Mrs. A. T. Neff; Jas. M. Lavin and wife, Mo.; Mrs. DuBeebe, Chicago; Dr. L. L. Whiteside, Ind.; Mertis B. Whitaker; J. A. Pegg, Miss.; Lillian Tockler, Okla.; W. H. Post and wife, W. Va.; Louise Swift; E. G. Lancaster, Mich.; G. F. Adams and wife, Wis.; H. Minnie Seitz, Pa.; C. G. Munro, Conn.; Mr. and Mrs. H. S. Thomas, O.; Margaret Thomas, O.; F. C. Staepel and Mrs. Staepel, Detroit; C. O. Haines and wife, O.; J. A. Kalbfleisch, Ft. Wayne; Mrs. Francis Blake, Boston; Mrs. S. S. Fitzgerald, Boston; Mr. N. S. Blake, Boston; Mrs. W. Barrett, Mich.; C. W. Bransford, Ky.; Mr. and Mrs. A. G. Curry, Ind.; Mrs. Ousse, Mich.; Mrs. Adena, Mich.; E. F. Shellabarger, Ill.; W. H. Jacobs, Okla.; B. F. Schanberg, Chicago; Mr. L. Silverberg and wife, Chicago; M. N. Dawson, Otter Lake; Mrs. K. A. Stinchcomb, O.; L. H. Wiman, M. D., Ill.; M. P. Belch, Mo.; Julia A. Belch, Mo.; W. E. Abraham, Chas. L. Powell, Chicago; T. C. Shafer and F. C. Shafer; L. E. Eschelbach, Mich.; H. M. Waterberg, Ia.; Mrs. F. F. Whited, La.; Miss Margaret and Neta Whited, La.; H. M. Lott, Fla.; Mrs. A. W. Chase, Ga.; E. G. Bunnell and wife, Indianapolis; F. J. Blum and wife, Ill.; Mrs. Christian Blum, Ill.; C. S. Van Wagoner, Brooklyn; S. Hopkins and wife, Colo.; M. L. Lockwood, Okla.

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Battle Creek, Michigan

News and Personals

Dr. W. H. Riley, of the Sanitarium staff, attended a meeting of the Society on Neurology and Psychiatry, of which he is an active member, in Detroit, on the fifth instant.

Bishop W. S. Lewis, of Foochow, China, has been in attendance upon the Methodist Ecumenical Council at Toronto, and has returned to spend a few more days with his wife, who is making a good recovery from a surgical operation.

The "Question Box" lecture on Monday evening was given by Doctor Riley, when many of the patients and guests availed themselves of the opportunity to ask questions relative to nervous diseases, in which line Doctor Riley is a specialist of wide reputation.

The X-ray Department of the Sanitarium is gaining a reputation outside the Sanitarium in this and neighboring States. Recently patients have been sent by their physicians from different parts of Michigan and Ohio to avail themselves of an X-ray diagnosis at the Sanitarium.

The mission study class meets in the fifth-floor parlor on Wednesday evenings. The class is now taking a series of biographies.

The one selected for this week was that of Adoniram Judson. The members had worked well and a very interesting and profitable hour was spent with that prince of missionary heroes.

A well-known physician who has just left the Sanitarium after having a very serious and a very successful operation, said to a friend: "Nowhere have I seen finer surgical work than in this institution. The preparation of the patient before the operation, the carefulness of the surgeon and the subsequent painstaking care have pleased me greatly."

Miss Jessie Marker, one of the Sanitarium patients, has returned to her field in Korea, sailing from San Francisco on September 18th. Miss Marker donated a Korean girl's costume to the missionary museum as a small token of her appreciation. This and many other objects of curiosity and interest may be seen in the fifth-floor parlor, which is open daily from 3 to 5 P. M.

Rev. J. L. Fowle, a missionary of the American Board to Cesarea, Turkey, was a patient at the Sanitarium for some weeks last spring. This week Mr. Fowle, with his wife, called at the Sanitarium and upon departing left a very kindly appreciative note expressing his deep gratitude for the benefits he had received here. While here last spring he became known as "The Grand Old Man of East Hall."

The Domestic Science School of the Sanitarium has just commenced the fall term with a freshman class of over twenty students. One of this class is Mrs. Clarence Clowe, of Tientsin, China, whose husband is connected with the Standard Oil business in China. Mrs. Clowe is preparing herself for the civil service. Two other members, Miss Carolyn Goodenough, and Miss Grace Pixley, are daughters of missionaries in South Africa.

Dr. E. J. Waggoner preached in the Sanitarium chapel on Sabbath morning to a large and attentive audience. Mr. Wolcott gave a beautiful rendition of "The Prodigal Son." Both the recitative and aria were very finely given. On Sabbath afternoon there was an illustrated stereopticon lecture upon "The Women of All Lands." The parlor was well filled and an instructive and profitable hour was spent with evident interest and enjoyment.

Rev. Cartwright, another of our missionary guests, has just left for his field of work in Mexico. So ill was he upon his arrival at the Sanitarium that it seemed almost impossible that he could recover; but patient perseverance in treatment and regimen for several months has gained for him a physician's certificate which permits his return to Mexico. Mr. Cartwright was a regular attendant at the daily prayer service, where his voice was often heard in thanksgiving.

A very helpful service was held in the parlor on Sunday evening, when Dr. Carolyn

Geisel gave a very helpful and comforting exposition of the 40th chapter of Isaiah, in which she especially emphasized the majesty and tenderness of the Almighty God. Mr. Leavitt, a missionary from Turkey, rendered a beautiful solo. Mr. Leavitt has been of great help in the music of the chapel and we are sorry to know that he is soon leaving us, though glad to say that he has well recovered his health.

On Thursday of last week Dr. M. A. Mortensen, a member of the Sanitarium medical staff, lectured in Detroit before the Michigan State Medical Association on "The Dietetic Management of Diabetes." This society embraces a membership of 2,000 physicians and surgeons throughout the State, of whom 600 were registered at this meeting. Doctor Mortensen's paper was well received, and together with other addresses delivered will be printed in the *State Medical Journal*.

In the list of returned patients we notice Mr. F. H. Heston, of Boston, Mass.; Mr. C. Moore, of St. Clair, Mich., a prominent business man and manufacturer of that city, who is here visiting his brother; Dr. and Mrs. D. C. Rood, of Duluth, Minn.; and Mr. H. C. Akeley, a well-known retired business man of Minneapolis, Minn. These tried friends of the institution are gladly welcomed by their many friends. Among missionaries, we also note Rev. F. G. Shellabear, a missionary of Malaysia.

On Tuesday evening an illustrated lecture was given in the gymnasium of the Sanitarium by Mr. Nat M. Brigham, entitled, "From Coronado to Kit Carson." The stereopticon views were very fine and the lecturer combined instruction and amusement in a most happy manner by his weird description and pleasing songs. Mr. Brigham challenges the outside world to show scenes comparable with our own scenic wonders. It will be remembered that on a former occasion Mr. Brigham gave a fine illustrated lecture on the Grand Canyon of Arizona.

In the main parlor on Tuesday afternoon Miss Lenna Cooper, principal of the Domestic Science department, gave a lecture and demonstration upon "Sugars." This was well attended and much interest was manifested in the instruction given. At the close of the lecture Miss Cooper extended a cordial invitation to attend the practice class in cooking which was to be held in the cooking school on Thursday, where the patients themselves would be able to learn how to prepare "desserts" according to the methods advocated by the Sanitarium.

Several missionaries who were patients at the Sanitarium have recently sailed for their respective fields, among them being Doctor and Mrs. Worley, who sailed from San Francisco in September en route for their mission station in China. Some one reported that Doctor Worley was so enthusiastic about the Sanitarium and its treatments that he made converts wherever he went. Another missionary who has been obliged to be absent from her field nearly four years on account



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of ill health was finally led to the Sanitarium, and after a thorough course of treatment is so much better that she has just returned to her much-loved work in Lucknow, India.

On Saturday evening an unusually fine concert was given in the parlor of the main building, which was taxed to its utmost capacity to accommodate those who had gathered to enjoy the fine program which had been prepared. Each number was of a particularly high character and included some fine selections by the Sanitarium orchestra under Mr. Drever and violin solos by Mr. A. E. Bryce, two beautiful songs by Mr. W. L. Wolcott, one of which, "Once Only," was sung with exquisite tenderness and perfect enunciation and elicited an *encore* and hearty applause. A selection from the inimitable Dickens was given by Mr. George Lyon. The reading chosen was "Dora, the Child Wife."

The Christian Endeavor meeting was held in the chapel on Friday evening. Mr. W. C. Kellogg was in charge of the service; the subject was, "New Work," for which there were many valuable suggestions. As an incentive to new endeavor, and as a means of encouragement, the leader had the chairman of the various committees give a brief statement of what work each had accomplished. Some very interesting facts were thus brought out: the Society is supporting a native nurse in a hospital in India; it has also contributed \$25.00 toward a writer-press outfit to be sent to a missionary in Turkey; and several families have been aided financially in times of bereavement. The society seems to be accomplishing big things and is certainly an earnest and enthusiastic gathering of the Sanitarium young people.

Among recent arrivals at the Sanitarium are Rev. and Mrs. Baker, of the Methodist Board of Missions in India. Mr. Baker is in great need of rest, having just finished ten months' arduous work in connection with the Laymen's Movement, during which time he addressed a meeting every day. Mr. and Mrs. Bishop, of the Methodist Board in Japan, have also arrived at the Sanitarium for a course of treatment. Another patient is Miss Elga Patterson, of China, who was in the Presbyterian Mission at Ling Chow, China, where the dreadful riots and massacres occurred a few years ago. Miss Patterson and one other missionary were the only ones on the station who escaped, and that only after great peril. When the disturbances were quelled Miss Patterson bravely returned to her mission station and finished out her term of service.

Twice each year a new class is formed for the Nurses' Training School. One was started on the first of October which numbers over forty members, and others will yet be admitted. The class is composed of an unusually bright aggregation of young women and men, who set out on their course with high courage. The demand for Sanitarium nurses is constantly increasing as physicians and others become acquainted with them and their work. Their knowledge of

practical work in physiologic therapeutics and their skill and training in all the lines of a nurse's profession are superior and are much appreciated by medical men. There is especially a growing demand for men nurses having a Sanitarium training, and this affords an excellent opportunity for intelligent Christian young men to fill an opening and supply a want that lies very near to humanity. The Sanitarium will be glad to hear from a few more young men who would like to take up this work. The course for men covers two years.

Great improvements are being made in the telephone exchange of the Sanitarium. New cables are being placed underground to the College building and on Sanitarium Avenue to improve the service and to add to its capacity. A similar improvement has already been made upon the east side of Washington Street, thus taking care of that section of the institution. An additional switchboard will soon be installed to relieve the present congestion of the busy numbers and add increased capacity. From the power house to the main building a conduit is being laid for the reception of the power cables. This will greatly improve the appearance of the lawn and will protect the cables from the sleet and storms of winter. It will necessitate the remodeling of the power switchboard to accommodate these changes and improvements which are being rapidly carried to completion under the care of Mr. Cleveland, the manager of the electrical department. It is estimated that during the recent storm about fifty or sixty phones and numerous lights were put out of commission temporarily, but the electrical department soon had them restored to working order.

The first social hour of the season was held in the main parlor on Monday afternoon. The storm outside only served to accentuate the warmth and cheer of the parlor with its big open fire, and the good nature and willingness of some of the Sanitarium guests to add to the enjoyment of the family was never more highly appreciated. Mr. George R. Lyons, a reader of great excellence and power, contributed several selections from well-known authors, covering a wide range from distinctly light and humorous to those which strongly appealed to the deeper emotions. Though claiming to be only "a plain business man," Mr. Lyons certainly possesses remarkable skill and power in interpreting the authors whose writings he selects. Mr. R. Wieboldt gave a remarkably varied and beautiful selection of violin music which greatly charmed his audience. He was accompanied by Mr. Irving A. Steinel, who is well known in the Sanitarium family. These two gentlemen gave several numbers, all of which were *encored*. At the close of the hour many of the guests crowded around the trio to express their appreciation and enjoyment.

Among recent arrivals are Mr. C. E. Bruce, of Elmira, N. Y., a well-known manufacturer; Mr. J. H. Kirton, Oak Park, Ill., who is connected with the board of trade; Dr. C. Ford Beachy, of Cumberland, Md.; Mr. E. C. Bowlley, of Benton Harbor, who is connected with the insurance business;

Mr. A. C. Hildebrandt, a retired farmer of Wilmington, Ohio; Mr. R. E. English, of Grove City, Pa., who is engaged in manufacturing, and with his wife is taking a course of treatment; Mr. Geo. P. Minaker, a publisher of Manitoba; Mr. R. A. Corwin, a lumber dealer of Pontiac, Mich., who is accompanied by his wife; Mr. C. O. Lyon, of New York City, president of the Thatcher Furniture Co.; Mr. Wallace Miller, a jeweler of Uniontown, Pa.; Mr. James Lavin, a railroad man, who is accompanied by his wife and niece; Dr. and Mrs. L. L. White, of Franklin, Ind. Other arrivals are Mr. W. H. Jacobs, a well-known merchant of Mangum, Okla., who is here with his wife for treatment; Mr. J. A. Kalbfleisch, who is connected with the I. B. College; Mr. H. M. Lott, a farmer of Tallahassee, Fla.; Mr. C. D. Fraterbury, cashier of the First National Bank of Dayton, Ia.; Mr. and Mrs. C. S. Van Wagoner, a hardware manufacturer of Brooklyn, N. Y.; Mr. Elmer G. Bunnell, Assistant State Superintendent of one of the public institutions, who is accompanied by his wife; Mr. M. P. Belch, a well-known lawyer of Jefferson City, Mo., who is accompanied by his sister; Miss Ella E. Poble, a Bible teacher, who is associated with Doctor Scofield, the well-known translator of the Scofield Bible; and Mrs. Ellen B. Ross, of Houston, Texas, wife of Judge J. C. Ross, who has returned for a course of treatment.

Sanitarium Postcards

A series of beautiful illustrations of familiar features and scenes about the Sanitarium, taken by our own artist. Select from the following list. Prices, two for five cents, one dozen for twenty-five cents, sent to any address. Order of the Sanitarium, Battle Creek, Mich. They may be ordered either by number or title.

- 1 Bird's-eye View of Sanitarium.
- 2 Sanitarium in Winter.
- 3 Gentle Bath.
- 4 Gymnastic Drill.
- 5 A Winter Night Scene.
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- 7 The Front Entrance.
- 8 Receiving Physician's Office.
- 9 Phototherapy Department.
- 10 Blood-Test Laboratory.
- 11 Ladies' Bath-room.
- 12 Vegetable Greenhouse.
- 13 Corner in Gastric Laboratory.
- 14 X-Ray Laboratory.
- 15 Gymnasium.
- 16 Front Entrance of the Sanitarium.
- 17 Main Building from the College.
- 18 East Hall.
- 19 Palm Garden.
- 20 In the Greenhouse.
- 21 The Main Parlor.
- 22 The Main Dining-room.
- 23 West Hall.
- 24 Northern View of Sanitarium.
- 25 Cooking School.
- 26 Nurses' Chapel Exercises Easter Morning.
- 27 Universal Strength Test.
- 28 Breathing Exercises.
- 29 Breathing Exercises.
- 30 Breathing Exercises.
- 31 Breathing Exercises.
- 32 The Kitchen.
- 33 Palm Garden Pharmacy.
- 34 Lady Nurses' Dormitory.
- 35 Bath-room Treatments.
- 36 College Building.
- 37 View of the Rear Lawn.
- 38 View from Front Entrance.
- 39 Southern View of Sanitarium.
- 40 Ladies' Indoor Swimming Pool.
- 41 Nurses' Graduating Class, 1910.
- 42 Gymnasium and Bath-rooms.
- 43 Nurses' Graduating Class, 1911.
- 44 Main Building (from College Lawn).
- 101 Sanitarium Annex.
- 102 Sanitarium Annex, from South Lawn.
- 103 The Annex, South Lawn.
- 140 Sanitarium Annex, from Southeast View.
- 105 Sanitarium Annex, North View.
- 106 Sanitarium Annex, Southeast View.

THE BATTLE CREEK IDEA

VOLUME IV
NUMBER FORTY-SIX

FIVE CENTS
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PUBLISHED WEEKLY AT BATTLE CREEK, MICHIGAN. OCTOBER 20, 1911

THE BATTLE CREEK SANITARIUM SYSTEM

**How Invalids Are Treated and Health is
Restored—The Means Employed**

THE work of the Battle Creek Sanitarium is both educational and practical. It aims at correcting wrong habits of living, or, better, at promoting right ways of living by edu-

BATTLE CREEK SANITARIUM A UNIVERSITY OF HEALTH

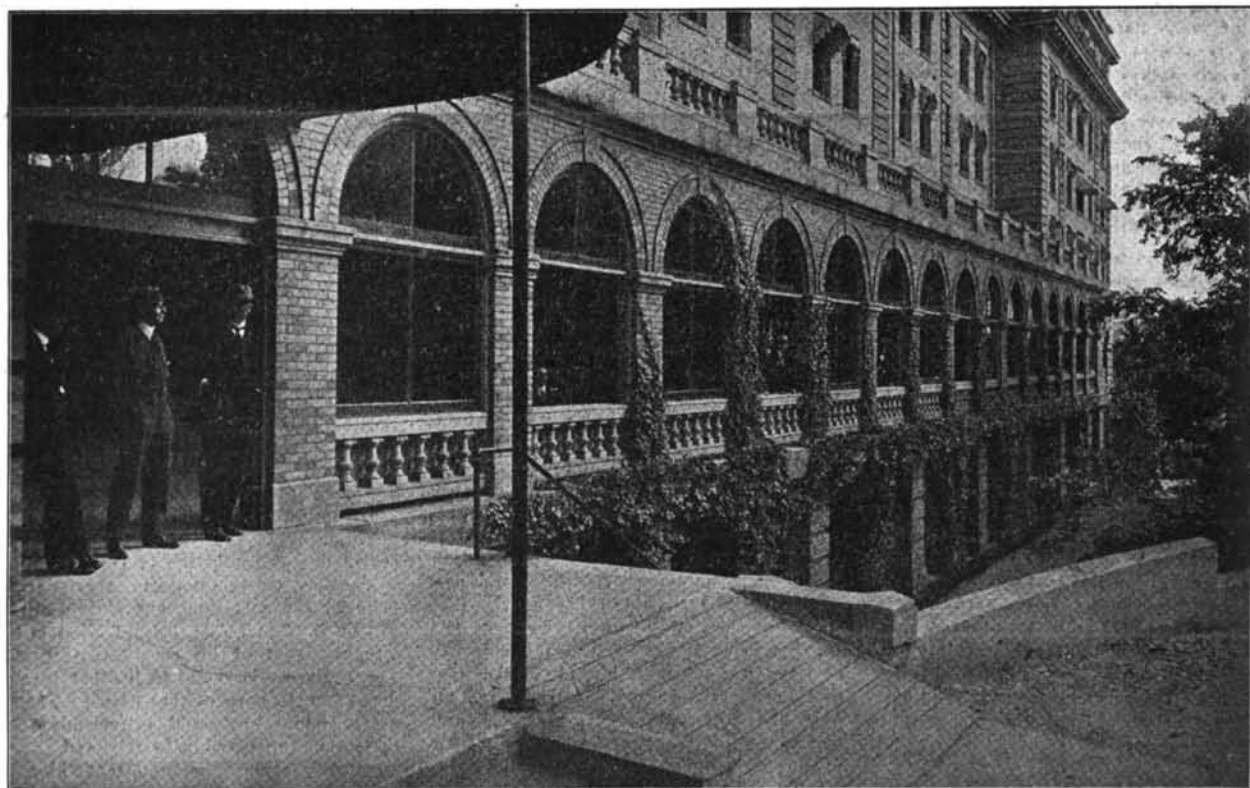
Educational as Well as Practical in Its Design and in Its Operation—Preaches the Gospel of Health While Healing the Sick

MANY have merely heard of the Battle Creek Sanitarium without having obtained

Good Health a Treasure

Dr. J. H. Kellogg, Superintendent of the Sanitarium, in a Parlor Talk Tells His Patients Some Pointed Truths

I MET a lady a day or two ago who said, "Doctor, how long do I have to stay here?" "Well, now," I said, "you don't have to stay



ENCLOSED VERANDAS OF THE BATTLE CREEK SANITARIUM

cating its patrons in the principles that govern proper living, and in applying to the invalids those means that are for the restoration of health that has been lost.

Sickness almost invariably comes as the
(Continued on page three)

any adequate knowledge of the institution and its work. A prominent gentleman from Detroit remarked, "Well, I am astonished that I should live in Michigan and simply know of the existence of this institution, all
(Continued on page three)

here at all; it is purely a voluntary matter. You are here for your own benefit, not for mine, and I suppose you will probably stay as long as you find it profitable; and certainly we will do our best to make it profitable for you in your effort to get well."

"Well, of course," she said, "but how long will I have to stay to get well?" I said to her, "That depends upon what you mean by being well, and how well you want to be."

I said, "Suppose you have a gold mine and a friend of yours should say, 'How long will you have to work this mine to get rich?' Your answer to that question would depend upon how much it would take to satisfy you. And probably nothing short of all there was in it would do that."

What I would like to see among sick people is an ambition to

Get All the Health There is for Them.

Why be content with a modicum when a great store of health is there for you? Why be satisfied with just as little as you can get along with? If a man is after money, he wants to get all that is coming to him.

Suppose you go after health with that kind of spirit. "I want all the health that is coming to me. I don't want to be content with just a little." Say, "Doctor, how long do you think I can stay profitably?" The only answer I ever feel I can honestly make to any one who asks me that question is this: "Now, we are going to do our very best to help you get well, and to show you how to help yourself to get well. We are going to cultivate health, and we are going to teach you how to cultivate health. We want you to stay here until you have all the health you can get, until you have reached the point where you feel that you have a splendid capital of accumulated health. When you go away from here, you are likely to go down hill again unless you are well established both theoretically and practically in the things you have learned and gained here."

To get well enough so that you know what health is, and learn how you can be well if you choose, and then not to choose to do it,

Is Like Finding a Gold Mine

and going right away and leaving it, turning your back upon it. So many people do that, so many people come here and learn the way to health, how to have joyous health, how to have splendid efficiency, learn how to climb up to greater heights of health, day after day, month after month, but never do it.

Why, a man comes here who is almost in the grave, and in a few weeks he feels like another man; and he wants to go right back home and spend all that health, put it into his business, or spend it in some other way, and then expect to come back here and get some more. I know of one man who spent seven years here in just that way. He would come here, get on his feet; but when he went home he would go back to his old whiskey and cigars, and other harmful things, then would rush back here a little while, then back home—the same old story over and over again every time. I felt he was a disgrace to us. It looked as though we were not capable of curing him, and we could not cure him under those circumstances.

Health is so Valuable

it is worth while to cultivate it, to accumulate it, and to get all you can of it, to hoard it up. Lots of people are misers of wealth, but how many people can you find who are misers of health, who are saving of the thing of the greatest value? Nothing except char-

acter and reputation compares in value with health. Nothing compares to it, of the material things that we value, nothing is so valuable as health.

It costs something to regain wealth when you have once lost it. When one loses his property he often has a long, hard struggle to get it again. It is so with lost health, and how many people seem to throw it away again and treat it as though it were a mere trifle. If you feel that you are really getting well here—then to turn away would be just exactly like abandoning the richest gold mine ever found.

The average man or woman who comes here is broken down, and never can be absolutely well. He can only have cultivated health; he can only have the sort of health that comes from careful obedience to the laws of health. Such a person is like the man who has spent the most of his fortune and has only a little entailed property left, and he can simply expend the income as it comes along. He can not get any deeper down into the capital, for that is largely gone, except the entailed capital, which he can not spend; that is all that is left.

Many people go to the doctor and say,

"Doctor, Give Me Something.

I can not work; I can not keep my brain going; give me a tonic, give me something to whip up my brain, to stimulate my nerves." And they are stimulated with tea and coffee, and with tonics of various sorts—strychnia, quinin, and all sorts of things, and arsenic, perhaps; and when they have squeezed their lemon until they can not get another drop out of it, then they come here to the Sanitarium. They expect to be rejuvenated, but it is too late. They can not get all that great capital back that they have expended. It has been thrown away—ignorantly, perhaps, or they would not have done it; but now the only way they can ever enjoy any degree of comfort or efficiency the balance of their life, is by living right close to the line. I must tell you that. It won't do to let any of you get away with the false impression that you can go home and back to the old ways again. You can never do it and keep well.

A lady I met the other day said, "Why is it I can not deviate the least little bit but what I get headache and depression, and a coated tongue?" It is because she had lost the power of disinfection. The surplus energy she used to have to take care of emergencies, the great power she had at one time to eliminate poisons, is all gone, and now she is reduced to physical penury, so to speak; she has only just a little capacity left for destroying and eliminating poisons. We have the liver and the kidneys to destroy poisons and take them out of the body, but when the liver and kidneys are worn out, they can do but little work, and when a little surplus of poisons is brought into the body, the bad effects are noticed right away.

I Met an Old Toper

some ten or twelve years ago in Chicago, and as I was endeavoring to get him to stop his drink, he said, "Doctor, here is a question I would like to put to you professionally. I have been drinking whiskey ever since I was a boy, and I have been accustomed to taking

large quantities of it, but nobody ever saw me stagger; nobody ever saw me drunk. But now there seems to be something strange about it; you know I was drunk yesterday, but I tell you on my honor I didn't take but just one small drink, and it went straight to my head; and why is it? I used to drink half a pint of whiskey and it didn't make me drunk; but now if I take just one little drink I am dead drunk, and don't know a thing that is going on, right away. Now, why is it?"

That is the same kind of case as the one we are speaking about. Autointoxication and whiskey intoxication are alike in a great many particulars. The trouble was that his liver and kidneys and alcohol-congested glands, and indeed all the organs of his body, had been exhausted. These self-sacrificing hepatic cells that used to seize the alcohol so it could not get to the brain, and hold it until it could be destroyed by the oxidizing powers of the body, had been dried up so there was almost nothing left of the liver; so the poor fellow was defenseless against the alcohol.

Exactly the Same Thing is True

of the person who has been suffering from autointoxication for a great many years; his power to deal with those poisons is lost and one small digression will produce more evil effects directly than a tremendous digression did before. Just a little bit of beefsteak, just a little fish, just a little taste of frog's legs, or a little bit of fried chicken, or a deviled crab, or a bedeviled lobster, or some other thing of that sort—he thinks it is not going to do him any harm, yet he suffers so badly afterward that he thinks the Sanitarium has not done anything for him at all, because he expected the Sanitarium was going to restore that liver he has squandered, and that splendid stomach he has wrecked, and those splendid antitoxic glands which perform these wonderful offices for us and protect us against these poisons—going to restore them all to their original vigor; but he finds it is not so.

No chronic invalid ever can be really well. The man who has been a chronic dyspeptic for forty years can not be restored to his original health. It would be necessary to create a new man to do that.

It Is Impossible to Do It.

The man whose liver has been spoiled by years and years of autointoxication, is hopelessly injured. The man who has had a coated tongue for fifteen or twenty years is so damaged that nothing can ever repair the injury. The only thing any chronic invalid can do is to make the best of what is left. The best part of his constitution is gone. The 150 years he ought to live has been reduced to a fraction of that period. There is a tremendous waste and a tremendous loss that never can possibly be retrieved.

So, my friends, the important thing for every one of you when you go back home is to take care of what you have left. If by so much toil, so much effort and expense, you have got a little accumulation of health, when you go home take care of it as a precious gift that Providence has given you, a precious opportunity: and you have now to make the best of your opportunities instead of throwing them away.

SANITARIUM SYSTEM

(Continued from page one)

result of bad living. In some way or ways the laws which give health and life have been ruthlessly ignored and trampled upon, until nature has become exhausted, and some part of the system has given out. Good sense would surely dictate that the first thing to be done is to discover what is wrong in the life, and set it right. If it is improper food, or improper ways of eating, find that out and eliminate the evil. Is it intemperance or tobacco, cut them out at once. Is it too little exercise, too much worry, too close confinement indoors, too little diversion, or whatever it may be, ascertain the nature of the cause of the trouble and remove it. No one can reasonably hope to recover his lost health while going right on in the practice of the thing that has cost him his health. The nostrums that promise to cure the dyspeptic and "no change of diet required" are put forth by liars and deceivers, who are anxious to make money at the expense of human life.

An Educational Center

The Sanitarium undertakes to discover these causes and faithfully to point them out to the patient and to instruct him in the right way. The Sanitarium patron finds himself in a great university where instruction is continually going on covering the whole wide field of personal hygiene. Lectures, classes, demonstrations, are held daily and he may avail himself of as many of them as he chooses. He is urged to make himself familiar not only with his own case, but with the broad and fundamental principles of healthful living.

In treating disease, recourse is had to physiologic means. The institution is not devoted to any one theory or hobby. It utilizes all natural means and methods that are adapted to the relief of suffering and physical ills. It is held that the human system carries in itself the power, when that power or force is not weakened or obstructed, to maintain its health, to recover its losses, and repair its injuries, and that there is no power in any extraneous substance or agent to heal. It can only be done by this inherent vital principle or power that operates within the body. Consequently, all that can be done for the sick is to assist this inherent vital force to assert itself and to do the work that only it can do.

The things that minister to this vital power are the resources of nature which were created for that purpose, and no artificial means can have more than a momentary effect in building up the strength.

The Measures Adopted

Among the principal measures relied upon in physiologic therapeutics are pure natural foods, hydrotherapy or water treatment, electricity, exercise, rest, diversion, fresh air. Hydrotherapy is administered in a hundred different forms. It furnishes a natural and harmless stimulant to vital activity, principally through the medium of heat and cold, though it serves other important uses. Electricity, exercise, diet, and so on, are also used in a great variety of forms to nourish and strengthen, and to correct abnormal condi-

tions. All these measures are adapted to the individual patient and are prescribed by the attending physician. The taking of baths or any of the treatments is not left to the indiscriminating choice of the patient, but is administered for scientific reasons and to produce definite results, and are therefore under skilful direction. The unskilled use of the bath not infrequently works harm.

The Sanitarium makes use of no mineral springs or waters, no nostrums or patent medicines, no proprietary cures or patent cure-alls, no secret remedies, or artificial means or methods whatever. Every approved appliance and agency that aids in the natural restoration of the health is employed in a thoroughly scientific manner. The patient is taken into the confidence of the physician and is made familiar with his own case, and the nature and object of his treatments are pointed out to him, so that the patient and the doctor work together intelligently. All day long there is something going on that tends to health. Each day is a full day's work for getting well. That is the business in hand, and the patient is expected to co-operate with what is being done for him. And as the patient sees his health springing forth each day the work becomes a delight. The tasks are not burdensome or irksome, but entertaining, and at the close of the day, when the evening entertainment or lecture is over, the patient has a healthy tired feeling that at once carries him off into a sound sleep and prepares him to enter with a zest upon the next day's work.



VIEW FROM THE SECOND FLOOR, SHOWING MAIN ENTRANCE

UNIVERSITY OF HEALTH

(Continued from page one)

these years, but having not the slightest information about it, either as to its proportions or principles, or the work that it is doing." That is a sample of many thousand similar cases. The object of this paper is to assist in extending an acquaintance with the Battle Creek Sanitarium to its readers.

There are many thousand sick people in this country who do not know which way to turn or how to get rid of their infirmities.

The things that have been recommended have failed to give the hoped-for relief, and yet, they must have relief from some source. Such cases need to know of the Battle Creek Sanitarium and the principles it advocates for the recovery and maintenance of health.

History

The Battle Creek Sanitarium had its origin in the year 1866 with a small company of people who had some ideas of reform in hygiene and medical practice, and started a small place in an ordinary story-and-a-half

farmhouse in the border of the town of Battle Creek upon high ground, where good sanitary conditions would be sure to prevail. The place was denominated "The Health Reform Institute," and consisted practically of a water-cure establishment on a small scale. The conceptions of a diet reform were crude and elemental, and not very satisfactory in their practical working out. For some years the enterprise struggled along without the guidance of scientific knowledge or of reliable experience. After ten years the place passed under the control of those who undertook to place it upon a satisfactory scientific

Original from

UNIVERSITY OF MICHIGAN

basis and in harmony with the best and most advanced principles of medical practice. Instead of antagonizing the medical profession it was sought to bring the work of the institution into such close touch with the most advanced and best medical knowledge and skill that the doctors should be made to see that the Battle Creek Sanitarium was in no way working against the profession, but was seeking to supplement their work by providing facilities which could not be had in private practice, and by taking exclusive charge of patients be able to do for them more than the doctor could do who only had occasional access to his patients and was unable to control their diet and other habits of living.

Intelligent and Wide-awake Physicians

soon recognized these advantages, and, though it took years of hard and patient striving to allay the prejudices that had been excited, and that exist toward water-cures and institutions in general, the Battle Creek Sanita-

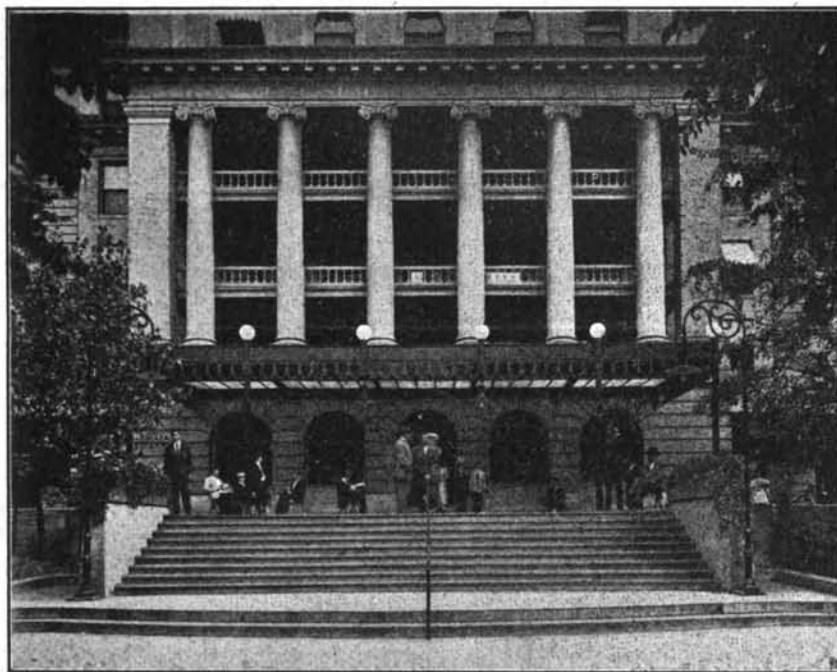
Twenty-Five Years Ahead

of the ordinary medical practice of the age. This relation to the medical profession shows at once that the institution makes no claim to any methods or specifics that are not well known and approved by the profession. It follows no fads, claims to do no miracles, and only aims at supplying the necessary and simple conditions that make recovery from disease possible.

From the little house in which the institution was once at home, the place has grown to be able to accommodate one thousand patients, with the necessary helpers. Instead of one little building, there are now four main buildings fitted up for patients, with a total floor space of about fifteen acres.

The staff of physicians numbers twenty-two, all of them fully qualified and regularly graduated physicians and possessed of unquestioned reputation and wide experience. Many of these have a reputation that extends widely beyond the institution. The doc-

E. G. Bunnell and wife, Indianapolis; F. J. Blum and wife, Ill.; Mrs. Christians Blum, Ill.; C. S. Van Wagoner, Brooklyn; Sol Hopkins and wife, Colo.; M. L. Lockwood, Okla.; Mrs. H. C. Wolfe, Chicago; Mrs. Ella C. Stewart, W. Va.; Jas. McKinner, Rochester; Wm. A. Mundhead, Cincinnati; D. C. Gibbs, Mich.; E. C. Bowlby, Mich.; Mr. and Mrs. Glenn L. Webster, Ia.; Mr. and Mrs. W. F. Daggett, Calif.; Rev. J. L. Fowle and wife, Turkey; Miss McCracken, Ohio; Mrs. A. S. Steele, Chattanooga, Tenn.; Mrs. B. D. Harrison and daughter, Detroit; Elda G. Patterson, China; M. Schwartz, Detroit, Mich.; Miss Garvin, Japan; Alfred Shepard and wife, Mich.; Thomas F. Carter, U. S. N., Pittsburgh; S. M. Randerback, St. Paul; Jas. C. Perry, Tex.; Harper Reed, Mich.; Emil Halstein, Ill.; Nat. M. Brigham, Ill.; Dr. and Mrs. Stewart Lewis, N. J.; Ethel Fellham, Albany; John H. Doherty, Conn.; Mr. and Mrs. J. B. Rumbaugh, Washington; Mr. J. E. Rumbaugh, N. C.; Mrs. E. E. Brooks, Tex.; Edwin Brooks, Tex.; J. B. Mayfield, Tex.; Mary B. Nicola, M. D., and Hazel Genevieve, Mass.; Mrs. G. J. Sorrell, Ala.; Mrs. E. G. McLaughlin, Tex.; Bishop W. S. Lewis, China; Mr. and Mrs. Geo. Burgson, O.; Mrs. H. L. Harris and child, Seattle; H. L. Hansen, Wash.; Mrs. E. M. Bowman, Wash.; Mrs. H. E. Perry, Can.; H. E. Loveless, Chicago; H. Haendle, Detroit; W. A. Clarke, Detroit; G. R. Hammond, Detroit; R. L. Andress, N. Y.; Mrs. Martha M. Allen, N. Y.; Adelaide Shepperd, Mich.; Mrs. A. S. Laidley, Tex.; Mrs. M. C. Garvin, Ind.; Mrs. H. S. Silby, Ia.; T. B. Armstead, St. Louis; D. P. Martin, Mich.; A. D. Bassett, W. Va.; Geo. H. Emerson, Wash.; F. B. Converse, O.; G. A. Wright and wife, O.; J. A. Wright, O.; Mrs. Nathan Paine, Wis.; Mrs. W. Z. Stuart, Chicago; E. W. Ford and wife, San Francisco; James A. Sigafon, W. Va.; H. C. Wahaman, Detroit; Edwin O. Wood, Mich.; Mrs. J. Griffith, Chicago; Chas. C. Thomas, Chicago; J. F. Roemer, M. D., Ill.; Miss Mary E. Taylor, Mo.; Miss Kate Shrew, Mo.; Mrs. Emma Berger, Ill.; Mrs. Barbara Hahthauff, Ill.; Elza Swirkey, O.; D. E. Curtis, Warsaw; P. M. Dunn, Chicago; Mrs. Mary E. Thompson, Ind.; Mrs. Jenrick M. Thompson, Ind.; W. D. Bishop, Grand Rapids; Noah Swank, O.; J. Swank, O.; F. C. Rose, Berlin; Theodore Mussner, Pa.; Harry Romer, Toronto; L. C. Shorne, Portland; J. O. Cheek, Nashville; Mrs. W. E. Conkling, Mich.; A. R. Feanery, Ky.; R. E. Phillips, Ky.; Miss Margaret Stockwell, Ky.; Dr. A. F. Hillman, Chicago; W. F. Daggett, Calif.; J. C. Walker, Ind.; D. M. Reynolds, M. D., Ind.; Mrs. Nellie W. Fairfield, M. D., Denver; A. G. Burry, Ind.; Marcus Russell, Mex.; Laura E. Thompson, Detroit; J. M. Peeples, Ga.; Geo. R. Tingay, Mich.; Emil Halstein, Ill.; S. Kate Carlin, O.; Maude Carlin, O.; Mrs. J. J. Bradner, O.; Mrs. Clara E. Bahl, O.; W. W. Lohes, Chicago; W. A. Gibson, Chicago; Jacob Sosh, Chicago; W. T. O'Brien and wife, O.; Mrs. M. E. Keller, O.; Mrs. M. L. Hill, N. C.; E. A. Binder and wife, N. Y.; S. T. McCormick and wife, Detroit; C. B. Harner, O.; James W. Nitschke, Columbus; Mrs. C. S. Chase and Miss Chase, Detroit; D. C. Gibbs, Mich.; Harper Reed, Mich.; Thos. Frost and wife, Mich.; A. F. Stauffer, O.



THE GRAND PORTAL OF THE SANITARIUM

rium won out with the doctors and they became the best friends the institution had, and so remain to this day.

The managers gave the Sanitarium the name it now bears and since the change in its policy have not only sought to work in harmony with the medical profession, but have kept alert to the advance steps that are continually being made in actual medical science, and have spared no expense and no pains in keeping in close touch with the great scientific centers of health and therapeutic study and investigation. And as light and knowledge have been brought out, and discoveries made, the Sanitarium has been among the first to investigate the merits of these advance steps and to adopt them according to their merits. The president of the American Medical Association is reported to have said some years ago that the Battle Creek Sanitarium was

tors are assisted by a full corps of trained nurses, numbering from 250 to 300. The employees of the Sanitarium number from 800 to 1,500, according to the season of the year.

The most expensive and perfect laboratory system, aided by the X-ray, gives absolute accuracy in diagnosis, and does away with the old empirical manner of treating invalids by trying one thing after another to find what was really needed.

ARRIVALS

THE following persons registered at the Sanitarium as guests during the week ending October 15, 1911: Chas. L. Powell, Chicago; Chas. Hodges, Mich.; T. C. and F. C. Shafer, Detroit; L. E. Eschelbach, Mich.; C. D. Waterbury, Ia.; Mrs. F. T. Whited, Misses Margaret and Nita Whited, La.; H. M. Lott, Fla.; Mrs. A. W. Chase, Ga.;

News and Personals

Dr. Harry B. Knapp, formerly of the Sanitarium, who has spent several years in Porto Rico, has now settled in medical practice in Ionia, Mich.

Miss Mabel Bacon, one of the recent graduates of the Sanitarium Normal School of Physical Education, has been appointed to the office of supervisor of Physical Education in the public schools of Battle Creek.

Among visiting physicians at the Sanitarium we notice the names of Dr. and Mrs. Stewart Lewis, of Lakehurst, N. J.; Dr. J. F. Rorner, of Waukegan, Ill.; also Mrs. E. G. McLaughlin, whose husband is a practicing physician in Sherman, Texas.

Dr. Mary B. Nicola and daughters Hazel and Genevieve, of the Attleboro (Mass.) Sanitarium, spent a few days at the Sanitarium last week on their way home from a two months' vacation through the West, including a trip through Yellowstone Park.

The daily prayer service for the sick is held in the fifth-floor parlor, and was conducted on Sabbath day by Dr. W. H. Martin, who emphasized the thought that faith and hope in God were powerful factors in the fight against weakness and disease.

On Saturday evening Mr. Nat. H. Brigham gave a well-illustrated lecture upon "The Apache Warpath." It was well illustrated with fine stereopticon views and Mr. Brigham rendered some of the Indian songs, which were greatly appreciated by his audience.

On Sabbath morning the sermon in the chapel was preached by Rev. W. S. Sweet, of China, whose subject was, "The Deeper Growth of the Spiritual Life." In the afternoon in the main parlor Mrs. Goodenough, of the Transvaal, spoke upon "The Transforming Power of the Gospel in Africa."

Dr. Mary Dryden, of the Sanitarium staff, has just left for an extended vacation and business trip through Iowa, Nebraska, Utah, Washington and Oregon. She will then return by way of the Canadian Pacific and is expected at the Sanitarium to resume her office duties after an absence of six weeks.

Rev. C. S. Mason, pastor of a church in Arkansas, who came to the Sanitarium a few months ago very much enfeebled, and made a good recovery, accepted the appointment of executive secretary for Arkansas to the Men and Religion Forward Movement, and left us last week to take up his duties. He was very happy in his new-found strength.

An honored guest of the Sanitarium is Mrs. Martha M. Allen, of Marcellus, New York, whose husband is pastor of the Methodist church of that city. Mrs. Allen is widely known for her work in connection with the W. C. T. U. and has done splendid work in lecturing on medical temperance

A CHANCE FOR STUDENT NURSES

THE BATTLE CREEK SANITARIUM AND HOSPITAL TRAINING SCHOOL FOR NURSES

offers exceptional advantages to those who contemplate taking up the Nurse's profession. A Three-Years' Course is offered to Women, and a Two-Years' Course to Men. Over two hundred Nurses are employed in the institution.

The demand for Nurses who are trained in the Sanitarium principles and methods is constantly increasing, both in the institution and outside. A good salary awaits those who finish the course.

In addition to the usual subjects taught in hospital training schools, special attention is given to all branches of physiologic therapeutics, including hydrotherapy, radiotherapy, electrotherapy, 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.

For full information address

SANITARIUM

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Battle Creek, Mich.

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of interested friends who you know would like to have the information contained in THE BATTLE CREEK IDEA, and we will send them free of charge a few sample copies. Simply write their names and addresses in the blank spaces below, cut out the coupon and mail to us, and we will send the papers.

formation contained in THE BATTLE CREEK IDEA, and we will send them free of charge a few sample copies. Simply write their names and addresses in the blank spaces below, cut out the coupon and mail to us, and we will send the papers.

NAMES

ADDRESSES

work and in taking an active part in the crusade against patent medicines.

Among returned patients we note with pleasure the names of Mrs. Josephine Griffith, who has just come from the New York Chautauqua, and is taking a course of treatment before returning to her home in Chicago; and Miss Mary E. Taylor, of Farmington; Mr. and Mrs. C. L. Webster, of Charles City, Ia.

A Jubilee Union Meeting of the Women's Missionary Societies was held on Thursday, to celebrate the first fifty years of women's work in foreign lands. Very interesting meetings were planned and held in the Sanitarium chapel on Thursday morning and afternoon and in the First Methodist church of this city in the evening.

"Chinese Gordon" was the subject of study by the mission class on Wednesday evening

in the fifth-floor parlor. The leader was Mr. C. J. Wencke, and it was interesting to note how enthusiasm and ardor were kindled as the heroic efforts of Gordon were described in the Taiping rebellion in China, and later in his noble, self-sacrificing work in the Soudan.

Miss Ruth Hemenway, who is well known to the Sanitarium family, is expected to give a reading in the parlor on Saturday evening next. The subject selected is Ralph Connor's much-loved story of "The Sky Pilot," and the Sanitarium family is to be congratulated upon the treat in store for them. Miss Hemenway is instructor in English in the Wesleyan University at Bloomington, Ill.

Rev. J. L. Fowle, a pioneer missionary to Turkey, who has made such a noble record in that land, recently spent a few hours at the Sanitarium en route to Milwaukee, where the American Board has been holding its 102d annual meeting, and at which the annual sermon was preached by Dr. Arthur H. Smith, of China, who during his visit at the Sanitarium last winter greatly endeared himself to the family and guests.

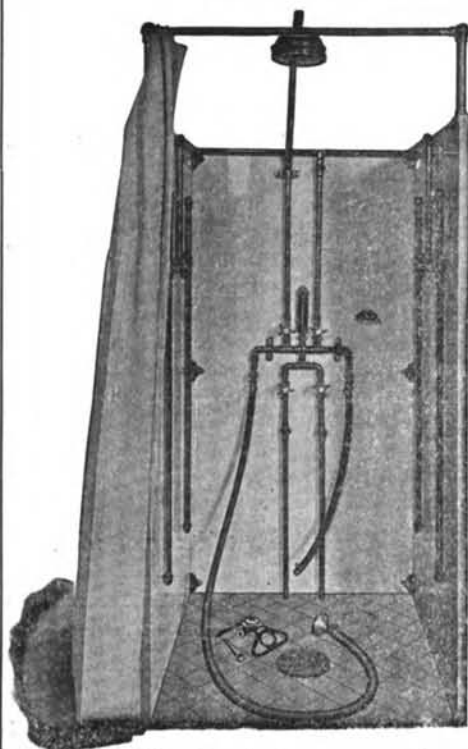
Mrs. Evelyn Fletcher Copp, of Brookline, Mass., lectured in the parlor on Tuesday evening to an audience that was quite interested in the new ideas promulgated by the lecturer. Mrs. Copp is the originator of "The Fletcher Music Method," which is a new method of teaching the piano to children. Mrs. Fletcher came to the Sanitarium after filling a lecture engagement under the auspices of McGill University, Montreal.

A lady who always receives a warm welcome at the Sanitarium is Mrs. Mary E. Thompson, of Rensselaer, Ind. This lady, who is accompanied by her sister-in-law, Mrs. Jennie M. Thompson, made her first visit to the Sanitarium in 1880, and during all the years since she has remained a staunch friend of the Sanitarium. She says that upon two occasions Doctor Kellogg has saved her life. Among the missionary arrivals is Miss Anna E. Garvin, of Korea.

The Sanitarium Christian Endeavor held its regular meeting on Friday evening in the chapel of the Sanitarium. The leader was Mr. Starr, of the nurses' department, and the subject was, "Why I Believe in the Bible." In an intelligent, earnest manner, the leader opened the subject for a discussion, in which a large number took part, all testifying to experimental knowledge in the truths and promises of the Bible which formed the groundwork of their religious belief.

On Wednesday evening Dr. W. H. Riley lectured in the parlor on the subject of "Nervous Exhaustion." He described the causes and symptoms of this common ailment among Americans, which he said was largely due to wrong methods of living and to the strain and stress of American life. He asserted that by proper methods of living and treatment, this disease is generally curable and advocated natural remedies such as are employed at the Sanitarium as being the

"The Greatest Tonic in the World"



¶ You have still to enjoy the greatest thing in the world if you are not yet taking a cold shower—rain, needle, or spray—every morning. Nothing in all this wide world can equal it as an eye-opener, appetizer, and invigorator. It makes you all aglow with that fine feeling that life is worth living.

¶ Would you pay a hundred dollars to enjoy this luxury in your own home every day for the rest of your life? It sounds incredible, but that is really all you have to invest to secure the KELLOGG HOME DOUCHE, which can be installed in your own bathroom, ready for immediate use at your own pleasure.

¶ With your hand in easy control of the water valves, you can take your choice of the shower from above, the needle spray from the sides, the ascending douche from below, the jet or the spray from any position—or combine any and all to suit your royal will, at any temperature you can stand, cold or hot. Truly a royal treat, to say the least.

¶ The Kellogg Home Douche gives you in a more convenient form practically the same advantages as the

celebrated Kellogg Douche Apparatus now in use everywhere in sanitariums, hospitals, treatment rooms, gymnasiums, etc. And the Home Douche dispenses with the attendant—you operate it yourself, and get as good results.

¶ And if you use it daily, you may steer clear of the day when you have to go to a sanitarium to get water treatment as a cure. *Get it now as a preventive—in your own home.*

PRICE:

The Kellogg Home Douche Apparatus, complete with attachments for Spray, Fan, Jet, and Ascending Douches	\$100.00
Duck Curtain and Curtain Rod, extra	10.00
Three Kiln-dried Hardwood Slabs with wood basin and floor drain (the wood basin is to be filled in with cement by your mason), extra	35.00
Slate Slabs, each, extra (wood slabs just as serviceable)	15.00
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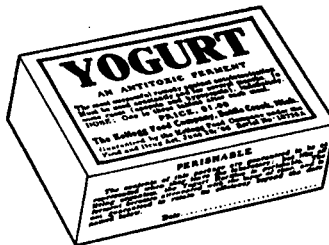
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 it should be absolutely fresh.

Don't stock up with quantities. The active principle in YOGURT is a germ and naturally deteriorates with age.

We agree to send six \$1.00 packages, postpaid, for \$5.00, mailing them in installments of one package each at intervals of twelve days.

This insures your getting the preparation while at its highest point of efficiency.

THE KELLOGG FOOD COMPANY,

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Battle Creek, Mich.

most successful in the treatment of this disease.

Mrs. Martha M. Allen, superintendent of the department of Medical Temperance for the World's and National Women's Christian Temperance Union, spoke in the parlor on Sunday evening upon "The Medical Temperance Propaganda of the W. C. T. U." A large audience listened with deep interest to her most convincing address, which was replete with valuable information and convincing facts and statements from eminent physicians, all pointing to the discontinuance of alcohol in the treatment of disease.

On Tuesday evening a very interesting lecture was given in the gymnasium by Mr. Nat. M. Brigham. The stereopticon views were very fine and well illustrated scenes and incidents in the lives of those great pathfinders, Coronado and Kit Carson. Mr. Brigham contributed a large amount of valuable and interesting information, and the views of that Western region were very good. Some Mexican songs rendered by Mr. Brigham were highly appreciated as illustrative of the people whom he so well described.

The Sanitarium family is expecting a visit from Rev. Dr. Chapman, President of Battersea College, London. Doctor Chapman is the chief secretary of the British section to the Fourth Ecumenical Methodist Conference which was held in Toronto, October 4 to 17. Doctor Chapman is a long-time friend of

Bishop John H. Hamilton, who is a warm advocate of the Sanitarium and its principles. In his own country Doctor Chapman has long been recognized as an eminent educator in the Wesleyan conference and has wrought well and nobly in the land of his birth.

A very pleasant wedding was solemnized in the Sanitarium chapel on Wednesday evening, when Miss Sylva Bills and Mr. Earl Tenney, both of the clerical department of the Sanitarium, were united in marriage by Pastor George C. Tenney, uncle of the bridegroom. As both the young people are well known, a large number of friends were present; the chapel was beautifully decorated with autumn foliage, and the bower under which the bridal party stood was aglow with crimson tints. An appropriate musical program was rendered by Mr. W. Drever, the organist of the Sanitarium.

An informal social hour was held in the parlor on Wednesday afternoon, when a goodly number of people were gathered for social intercourse and the enjoyment of some fine music which was rendered by Mr. Wolcott, who sang several songs with such beauty and clearness of enunciation that the applause was most hearty. Mr. Wieboldt's selections on the violin were very fine, and well received by his audience. Both these gentlemen were accompanied on the piano by Mr. Irving A. Steinel. Mr. Geo. R. Lyons, with

unfailing good nature, gave several readings which were much appreciated. The Sanitarium guests are fortunate in having among their number so many who are able and willing to contribute to their enjoyment.

The bulletin board plays a distinctly noticeable part in the daily life of the Sanitarium. One morning recently, among the notices of events for the day, appeared this quotation:

"What does cheerfulness imply? It means a contented spirit; it means a pure heart; it means a kind, loving disposition; it means humanity and charity; it means a generous appreciation of others and a modest opinion of self."

—Thackeray.

Hundreds of people during the day read that suggestive little paragraph. It is a good thing to have one's mind lifted up to a higher plane of thought and purpose, and Mr. Hoffman, the blackboard scribe, is always very happy in his selections.

Mr. A. W. Emmons, who for a term of years had charge of the culinary department of the Sanitarium main building, and more recently has acted as superintendent of the dining-room, was called away from us last week by the illness of his father, which makes it necessary for him to give attention to his parents and their home affairs. Mr. Emmons by his efficiency and uniform courtesy has won the esteem of a host of people, and

will be greatly missed by the patrons and his former associates. His place is well filled by Miss Agnes Asldon, who has had charge of the dining-room at the Annex during the summer, and has proved herself in every way efficient and capable in so important a place. The dining-room employees presented Mr. Emmons with an umbrella and suit-case as a token of their regard for him.

On Saturday evening invitations were issued by the Normal School of Physical Education to a house-warming to be held in the newly-equipped dormitory building for the young ladies of that school. There was quite a large gathering of nearly fifty professors and students, and a most enjoyable evening was spent in social intercourse, guessing contests, and music, the latter being furnished by Mr. Wolcott, who rendered several beautiful baritone solos, in which he was accompanied by Mr. Steinel. Mr. Geo. P. Lyons also contributed some good readings which were much appreciated by all. Mr. and Mrs. Anton Schatzel, the resident professors at the dormitory building, acted as host and hostess of the evening. Doctor and Mrs. Hastings and other professors were also present and contributed to the pleasure of the occasion.

With other arrivals we note Mr. and Mrs. Burgener, of Paulding, Ohio, in which city Mr. Burgener is a prominent business man; Mr. John J. Doherty, a builder and real estate man of Milford, Conn., who with his son is taking a course of treatment at the Sanitarium; Mr. G. A. Wright, a banker of Bellevue, Ohio; Mr. James A. Sigafosse, a banker of Chicago; Miss Julia A. Belch, of Jefferson City, Mo.; Mrs. F. T. Whited, who is here for a course of treatment, and is accompanied by her husband and two daughters; also Mrs. G. J. Lorrell, whose husband is probate judge of Dadeville, Ala.; and Mrs. H. S. Silby, whose husband is a well-known automobile manufacturer of Guthrie Center, Ia.; Mrs. E. N. Ford, of San Francisco, whose husband is prominent there in business circles; and Miss Margaret Roberts, daughter of Judge Roberts, of Austin, Tex.

On Monday evening the parlors of the main building were filled with a large audience who listened with evident enjoyment to the admirable music furnished by the Sanitarium orchestra, after which Dr. Carolyn Geisel held the audience with close attention and deepest interest while she spoke upon the subject of "Euthenics, or the Science of Environment." It was a plea for the sane and safe upbringing of the children, and for the development of the noblest and best qualities in husband and wife, which should create the ideal home, and thus give the children the right start in life. She then branched out to the environment of school life and city life, and made a strong plea backed by irresistible data for education and co-operation in sanitation and hygiene. The hearty round of applause at the close of the lecture showed how deeply the speaker had stirred the hearts of her audience.

The main parlor of the Annex held on Thursday afternoon a most unique gathering

of missionaries from China, India, Assam, Malaysia, Africa, Japan, the Philippines, Egypt, and Siam, who were gathered to have a social hour with Bishop Lewis, of China. These resident missionaries at the Sanitarium are taking treatments to enable them to get into that physical condition which will permit their return to their fields of labor. The social was much enjoyed by the guests, who greatly appreciated this opportunity of becoming better acquainted with each other and getting some glimpse into the life of other lands than the one in which their life work was being done. Social intercourse was interspersed with music and songs of other lands, and good stories that raised both laughter and sympathy for our neighbors over the seas. The recent news of the rebellion in China was also talked over and great anxiety was expressed by Bishop Lewis and the missionaries from China upon this crisis in the affairs of that land.

Among recent arrivals are: Mr. M. S. Lockwood, an oil producer of Tulsa, Oklahoma, who is well known to the Sanitarium family and always receives a warm welcome; another former patient is Mr. W. A. Mundhenk, who is connected with a well-known bank in Cincinnati, Ohio; and Mr. S. W. Radenbush, a piano manufacturer of St. Paul, Minn., who is a long-time friend of the institution; Captain T. F. Carter, of the U. S. Navy, is also gladly welcomed as a former friend and patron. Other patients who have returned for a course of treatment are: Mr. R. L. Andrews, a merchant of Bolivar, N. Y.; Mr. Alfred Shepard, a manufacturer of Fort Valley, Ga., who is accompanied by his wife; also Mr. D. C. Gibbs, of Ithaca, Mich.; Mrs. Anna Daggett, of Pasadena, Calif., has also returned for a course of treatment; Miss Jessie Paine, of Oshkosh, Wis., who is here with her sister; and Mrs. Helen K. Stuart, of Chicago; these ladies have many friends in the Sanitarium, by whom they are gladly welcomed.

Mrs. Flora W. Chew, a missionary from India, who was a recent guest at the Sanitarium, has sent the following clipping from the *Indian Witness* as confirmatory of the principles advocated in this institution. The excerpt quotes an important opinion coming from Lieut.-Col. H. W. Pilgrim, I. M. S., surgeon superintendent of the Presidency Hospital, Calcutta: "I would like to remark in passing that in my opinion climatic influences in the production of the vulnerable liver in the European in India are greatly exaggerated, and that this tropical or vulnerable liver is chiefly due to alcohol (even in moderation), and secondarily to excessive consumption of meat and overeating generally; and also either too much or too little exercise. I think alcohol, even in moderation, and excessive meat-eating, are the factors in the construction of a vulnerable liver. In some hundreds of cases of liver abscesses which I have seen, I have never come across one in a teetotaler, and can only recall some four or five cases among European women. I have a great respect for the European liver, and believe that, even in India, it will do nearly as well as the Indian, provided its

possessor abstains from alcohol, and more or less eschews butcher's meat."

One of the unique features of Sanitarium life is the song service which is held every Friday evening in the lobby. This ushers in the Sabbath, when the ordinary routine of treatments is suspended and a little breathing space given to cultivate those things which make for the higher life. Everybody—patients and guests and helpers—gather in the spacious lobby and for forty minutes join in singing well-known and favorite hymns. Here is a group of fine, earnest looking young men whose common love of music has drawn them together and whose resonant voices add greatly to the harmony of the whole; here is a group of nurses in white caps and uniforms who evidently love the hymns with which they are so familiar; here is a band of little children; and here a little group of patients whose bright faces and cheery voices show that they are making a successful fight against weakness and disease. The Sanitarium organist, Mr. Drever, has previously gone through the audience and taken the requests for special favorites to be sung, and as these hymns of praise are sung out from the crown in the lobby, they float up into the halls and corridors of the building, where the sick ones in their rooms are able to share in the blessing and uplift of sacred song.

Sanitarium Postcards

A series of beautiful illustrations of familiar features and scenes about the Sanitarium, taken by our own artist. Select from the following list. Prices, two for five cents, one dozen for twenty-five cents, sent to any address. Order of the Sanitarium, Battle Creek, Mich. They may be ordered either by number or title.

- 1 Bird's-eye View of Sanitarium.
- 2 Sanitarium in Winter.
- 3 Gents' Bath.
- 4 Gymnastic Drill.
- 5 A Winter Night Scene.
- 6 A Winter Night Scene.
- 7 The Front Entrance.
- 8 Receiving Physician's Office.
- 9 Phototherapy Department.
- 10 Blood-Test Laboratory.
- 11 Ladies' Bath-room.
- 12 Vegetable Greenhouse.
- 13 Corner in Gastric Laboratory.
- 14 X-Ray Laboratory.
- 15 Gymnasium.
- 16 Front Entrance of the Sanitarium.
- 17 Main Building from the College.
- 18 East Hall.
- 19 Palm Garden.
- 20 In the Greenhouse.
- 21 The Main Parlor.
- 22 The Main Dining-room.
- 23 West Hall.
- 24 Northern View of Sanitarium.
- 25 Cooking School.
- 26 Nurses at Chapel Exercises Easter Morning.
- 27 Universal Greenhouse Test.
- 28 Breathing Exercises.
- 29 Breathing Exercises.
- 30 Breathing Exercises.
- 31 Breathing Exercises.
- 32 The Kitchen.
- 33 Palm Garden Pharmacy.
- 34 Ladies' Nurses' Dormitory.
- 35 Bath-room Treatments.
- 36 College Building.
- 37 View of the Rear Lawn.
- 38 View from Front Entrance.
- 39 Southern View of Sanitarium.
- 40 Ladies' Indoor Swimming Pool.
- 41 Nurses' Graduating Class, 1910.
- 42 Gymnasium and Bath-rooms.
- 43 Nurses' Graduating Class, 1911.
- 44 Main Building (from College Lawn).
- 101 Sanitarium Annex.
- 102 Sanitarium Annex, from South Lawn.
- 103 The Annex, South Lawn.
- 104 Sanitarium Annex, from Southeast Lawn.
- 105 Sanitarium Annex, North View.
- 106 Sanitarium Annex, Southeast View.

THE BATTLE CREEK IDEA

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Neuritis— What it is

How It Should be Treated and How It is Cured—Portion of a Lecture by W. H. Riley, M. D., in the Sanitarium Parlor

THIS term, neuritis, which means inflammation of the nerves, and applies to a great
(Continued on page three)

Life at the Sanitarium

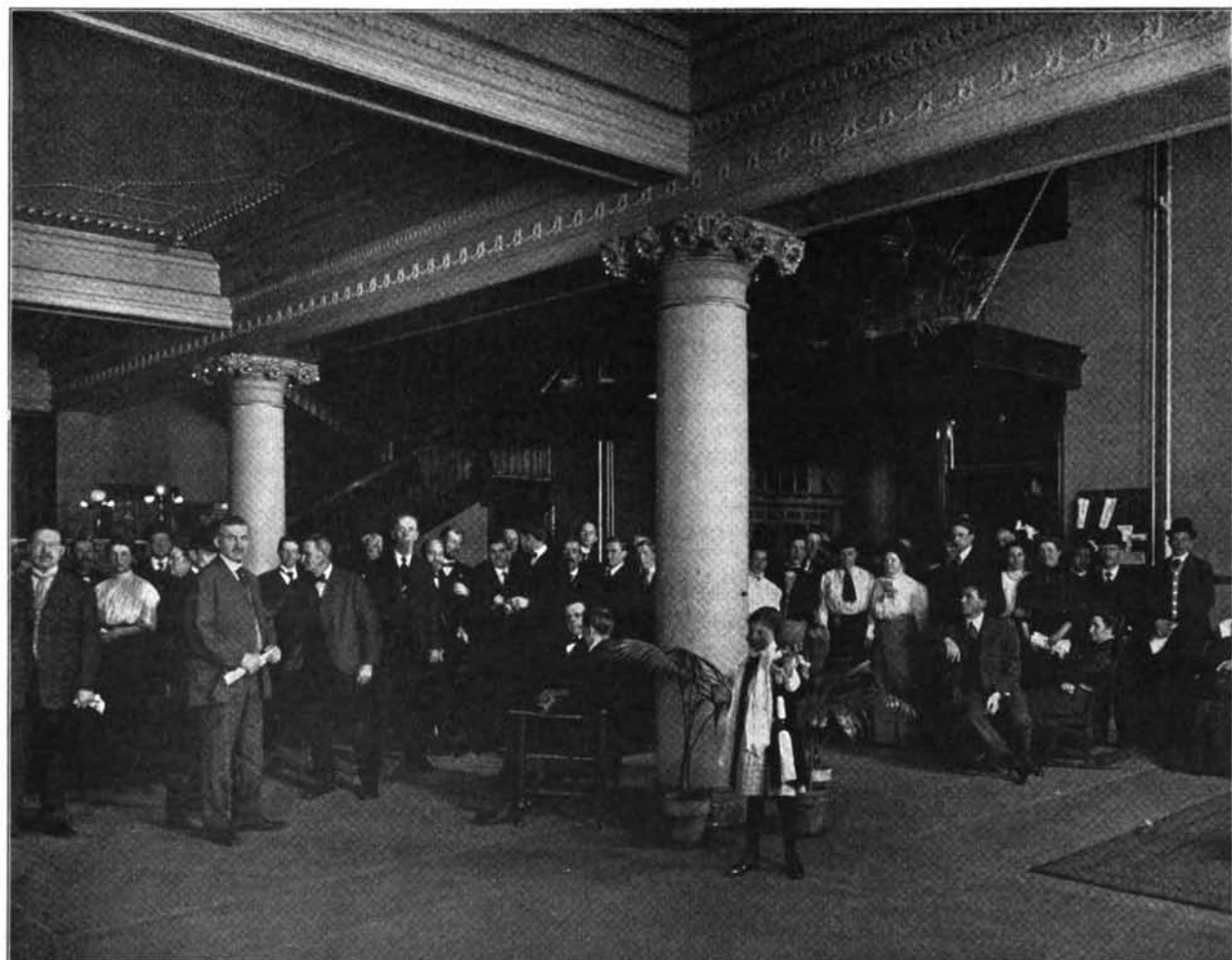
How the Time is Put in—Social Life and a Busy Program for Each Day—No Danger of Loneliness or Homesickness

IN its social life the Battle Creek Sanitarium is neither a hotel, a hospital, nor yet a
(Continued on page four)

Degeneracy of Mankind

The Race is Going Down—What Are the Causes and What the Remedy?—From a Lecture by J. H. Kellogg, M. D.

I HAVE been making a special study during the last few months, of the subject of race degeneracy. I was recently asked to give



an address at a state convention held in New Haven, on the question of race degeneracy; and summing up the information I have been collecting for some years back, I was really astonished to find what an enormous mass of evidence there is to show that the race is going down very rapidly.

I visited the Peabody Museum in Boston, and I was particularly interested in studying some of the fossil heads they have there, and it is very evident from them that we have been losing ground. The cave man had a better head than the modern man, at least he had a stronger jaw, more perfect teeth, and no evidence of decay. There was a jaw of a man that had been buried in the ground thousands of years—nobody knows how long, and the teeth were still absolutely perfect. But to-day we find children that have hardly a sound tooth in their heads.

A short time ago an investigation was made in Cambridge, England, of the children of the public schools, and there was only

Nine-Tenths of One Per Cent

of children eleven years old who had all sound teeth. Seventy per cent of the teeth of children thirteen years of age were found to be irreparably damaged. We are losing our teeth very rapidly. A great many people do not have more than two incisors in the upper jaw; the outer incisors are disappearing. I dare say there are people in this room whose outer incisors are merely little points, or perhaps are absent entirely, and the third molar is disappearing; the jaw is getting too short; there is not room for the third molar. A great many people never have any wisdom teeth at all; and in a great many cases it remains down in the jaw, and is simply embryonic. The primitive man, the mound builders and the people who lived 200 years ago, had a great deal better teeth and better jaws than we have in these days.

There is a large collection of skulls in the museum of the College of Physicians and Surgeons in London, that were gotten out of a clay pit. Two hundred years ago, when they had the black death in London, people were carried off by hundreds every day, they were put out into the streets and gathered up every morning and deposited in a big hole all together, and a great number of skulls have been found in these pits, and the teeth in these skulls are wonderfully good. They are not quite as sound as the teeth of the men that lived in prehistoric times, but they are a great deal better than the teeth of the modern man.

Not only are our teeth degenerating, but

Our Toes Are Degenerating.

There is one joint lacking in the little toe in one person out of every three; and some people have only two joints in the fourth toe, and only two in the large toe.

I had an interesting conversation with a gentleman in the office this evening whose business is the manufacture and sale of artificial supports for the feet. He said that in many persons the arch of the foot is being broken down because the foot is getting weak,

degenerating. This gentleman told me that they made scores of thousands within the last six or seven years, of steel braces for the feet, because the muscles and tendons which support the arch of the foot have become so universally weakened in civilized people.

In Japan the people have better feet than we have. A Japanese woman can use her toe as you or I use the thumb. She holds her sewing with her toe. Instead of having to pin it to something, she takes hold of it with her toe. When I was in Egypt some years ago, I saw potters, carpenters, and other people working with their toes, as we work with our hands, and with very great advantage, having four extremities to work with instead of two. With us the muscle which opposes the great toe to the other toes, which we have well developed in relation to the thumb, is degenerated into a very small muscle, and we have not used it because we have put our feet in cases.

Also I may say

We Are Losing Our Ribs.

We are entitled to thirteen ribs instead of twelve. The gorilla has thirteen ribs; so has the chimpanzee; and the Australian native, who is nearer to nature than we are, has in many cases thirteen ribs. We all had thirteen ribs when we were very young. In embryo we all have thirteen ribs, but the thirteenth embryonic rib absorbs and is not developed in the average man. We used to have eight ribs attached to the sternum, but the eighth rib is gone; the seventh rib is disappearing, and the first rib is dropping out, and the whole thorax is shortening up. I gazed with a great deal of interest at a skeleton of a man, an orang, and a gorilla side by side in a glass case. The gorilla had a chest so large that a couple of small men could have gotten inside of it without any difficulty. We are losing our chest; it is contracting above and below, because we do not make proper use of it. We sit in chairs and coddle ourselves; we do not expand the lungs by exercise; and it is only once in a great while that we find a man who has a chest to amount to anything. It is for that reason that we are losing our chest and degenerating.

There is only

One Organ in the Body that is Not Degenerating,

and that is the liver; for the liver is getting larger. It is quite common to find a man with an extraordinary liver. We had a man here some time ago who died the next day after he arrived, and we found his liver weighed twenty-eight pounds—about six or seven times as big as it ought to be. The unnatural growth of the liver is caused by the extra work imposed upon it in eliminating the poisons of the ordinary modern diet. It is an advantage to us if we are going to live on a beefsteak diet. The average American has a crippled liver, and it is very necessary to reform his diet on that account.

There are many reasons why we are degenerating. I visited the census office in Wash-

ington to find out how much whiskey and tea and coffee we are drinking every year, and how much tobacco we are using, and I was really astonished at the latest figures. We are drinking more whiskey per capita at the present time than we ever did before; using more tobacco, taking more coffee per capita than we ever did before, and we have gone to an extreme in the use of meat that is most astonishing. The per capita consumption of intoxicants is one-half pint of liquor for every man, woman and child in the United States, every day. Not a half-pint of whiskey, for about nine-tenths of it is beer. I calculate that the amount drunk is about 356 grains of alcohol every day, and six grains of caffeine.

Six grains of caffeine is as large a dose as a doctor would give a man. That is a medicinal dose; and yet every man, woman and child living in the United States at the present time takes on an average 356 grains of alcohol, six grains of caffeine, and six grains of nicotine per day. Half a grain of nicotine will kill a cat, and a fourteenth of a grain of nicotine will kill a frog, and yet every man, woman and child in the United States takes on an average every day six grains of nicotine, enough to kill 100 frogs, and enough to kill sixteen cats. Put them all together, and we are taking 368 grains of poison, in alcohol, nicotine, and caffeine every day. It is

No Wonder We Are Degenerating.

for these produce degeneracy.

I met Doctor Gordon in Philadelphia, who has been making a careful study of the effects of alcohol. He studied 118 families in which both parents used alcohol, and he found 200 children in these families. Of these children, three-fourths were epileptics. What a terrible thing that is. He studied also twenty families in which the grandparents used alcohol as well as the parents, and he found thirty-eight of those children were lunatics, twenty-six imbeciles, and all the rest, every one of them, were defectives. That is what alcohol is doing, and tobacco is doing the same thing in a certain way.

The Carnegie institution has been making a careful study of the subject of eugenics under the charge of Professor Davenport, who has been making a study of the state of New Jersey to see how many feeble-minded people there are there, and how rapidly the condition of feeble-mindedness is increasing. They began with the feeble-minded institutions. They took one family and traced it back two or three generations to a feeble-minded woman and an alcoholic man, and they found 600 of that family of whom only fifty were normal.

The ratio of feeble-minded to sound-minded people has doubled in one generation. The reason the race is going down at a very rapid rate is that we have departed so far away from nature. We have gotten entirely out of normal conditions.

I have been talking to you, my friends, about this, hoping that I might induce some of you to change your mode of living. We must do it as a race. If we do not, we are certain to go down to race extinction, because race degeneracy means simply race extinction; there is absolutely no help for it.

NEURITIS—WHAT IT IS

(Continued from page one)

many different conditions, is often used in rather a loose sort of way by the laity, and is sometimes used in this way even by the physician. There are a great many different kinds of neuritis. Every pain that one may have does not necessarily mean neuritis, although pain accompanies neuritis as a rule. One may have a neuralgic pain simply due to irritation of a sheath of the nerve, but this would hardly be neuritis. We have so-called multiple neuritis often from the use of alcohol, which is really quite a serious disease. I have seen quite a number of cases where a man, addicted to the use of alcohol in moderation for a period of years, after a time has broken down with multiple neuritis.

Multiple neuritis is a form of neuritis that affects many nerves—nerves of the hands and arms, of the feet and legs, and sometimes even the nerve that controls the heart is affected, and other nerves are liable to be affected. It produces usually a complete paralysis so that the patient is helpless in bed, can not feed himself; his heart is usually rapid, and along with it there are at times some mental symptoms. Then we have neuritis from metallic poisoning, particularly from arsenic; and from certain infections like typhoid fever, diphtheria, and the disease known as beri-beri, an Eastern disease, supposed to be caused by eating too much starch, or rice which has been polished. Most cases are curable, but not all.

Remedies

With reference to the remedies to be used, the first thing is to find out the cause and remove it if possible. The man who uses alcoholic liquors and develops neuritis must stop his alcohol; and that is one of the things that frequently stands in the way of a cure. The man is cured for the time being, but goes back to his old habits, and if he has a second attack of neuritis, it is worse than the first, more difficult to cure; but, whatever the cause may be, it should be removed. It is always due to some poison circulating in the blood, and it is very important to get rid of the poison. Proper elimination, proper care of the bowels, keeping the skin active so it can eliminate poisons, drinking a sufficient amount of water to carry the poisons out through the kidneys,—all of these are important.

Then the affected parts should have rest; the application of heat in the form of fomentations in some cases, or radiant heat, the rays of which penetrate into the tissues, is valuable. There is quite a difference between heat rays and light rays. The heat rays expend their force more on the surface of the body. There is a resistance on the part of the skin to the passage of the heat rays. The light rays penetrate into the tissues and affect deeper parts; so when we want to affect a deeply seated organ, we are more apt to use the radiant heat than we are ordinary heat. Galvanism and other forms of electricity applied over the nerves is also good in many cases. Keeping the nerve well protected against atmospheric changes by wrapping it in a dry pack of cotton batten, so as to retain the heat and prevent changes of

the atmosphere affecting the skin, are good measures.

Neuritis Sometimes Causes a Paralysis.

We never get paralysis from simply a pain in the nerves. But the man who has genuine neuritis is very apt to have either muscular weakness or paralysis in the muscles that are supplied by the nerve which is affected; so it is necessary to take care of the muscles. The muscles should be treated with electricity.

There are many tests that we put the nervous system through in order to detect the seat of the disease, and one of the important tests that the physician has to make, is to test the nerve with electricity, and find out whether it is degenerated or not by the reaction which we get by applying the electric current to the muscle. In neuritis we get what we call the reaction of degeneration, which means that the nerve fiber that

paralyzed muscles will not respond at all, and the ones on the other side will respond readily to the Faradic current.

That will give you just a little idea of some of the tests by which we are able to find out whether or not the nerve is degenerating. And this we call the reaction of degeneration, which means that the nerve is degenerating, and we can tell quite accurately the extent of the degeneration.

The Principal Remedies,

then, in the treatment of neuritis are, rest, and the use of heat and light, and the galvanic current properly applied. The cause should be first removed and the general health should have careful attention, because anything that will improve the general health will help the nerves to grow out. The only way that this degenerate nerve will get well is by the nerve growing out, very much in the same way that a twig grows out from a



THE MAIN PARLOR

supplies the muscle is degenerating, and when we get that particular electrical reaction, we have a genuine neuritis.

In some cases the face is paralyzed on one side. The patient thinks there is something the matter with his brain; but in the case that I am referring to now there is nothing the matter with the brain. The muscles of the face are droopy; he can not close his eye; food gets between his teeth and his cheek; he can not pucker his mouth to whistle; can not close his teeth and separate the angles of his mouth, because the muscles of his face are paralyzed, because the nerve which supplies the muscles is suffering with a neuritis. This is sometimes called Bell's palsy. The paralyzed muscles often respond better with a weaker current than do the muscles on the other side which are perfectly healthy. In other words, the diseased muscles are more sensitive to the galvanic current, whereas, with the Faradic current these

tree, and that illustrates very nicely the entire principle of getting health. When one gets health, he must grow into it; he can not get well in any other way. A reconstruction must take place in the tissues that make up the body. This is illustrated in neuritis, where a nerve fiber becomes inflamed and degenerated, and the only way in the world that that nerve fiber can get well is by growing a new nerve fiber to take the place of the one which is degenerated and gone. And the stump that remains sends out a new nerve fiber, providing the cell body back of it is healthy enough to send out a new fiber.

A GREAT many people's faith is like the old woman's trust. Some one said to her, "Madam, how did you feel when the horse ran away?" "Well," she said, "I hardly know how I felt; you see I trusted in Providence at first, but when the harness broke, then I gave up."

LIFE AT THE SANITARIUM

(Continued from page one)

pleasure resort. It partakes more of the character of a home with a very large family, in which each one is a member on equality with other members, and entitled to the same privileges and the same respect and attention. Pains are taken by the management to give to the place a homelike atmosphere and influence. The restful, quiet spirit of the true home is cultivated and promoted in every way. The stranger who comes within our gates is soon in the midst of a circle of new-found friends and acquaintances, every one of whom is ready to contribute to his comfort and help, to cause him to feel that he is among friends.

While there are at the institution at all times many people who are seriously ill, yet to one going about and visiting the dining-rooms and parlors, halls and lobby, there is

fashionable dress and styles are not affected; one may go to his meals in any respectable clothing and not attract notice. Stately dressing for dinner is not required or encouraged, and one reason is that the principal meal comes in the middle of the day, and the evening meal is a more informal one.

People who are retiring or who need to be alone and remain quiet may do so to any degree, while those who are able and disposed to enjoy good company will find an ample and choice field for their social qualities.

Life at the Sanitarium

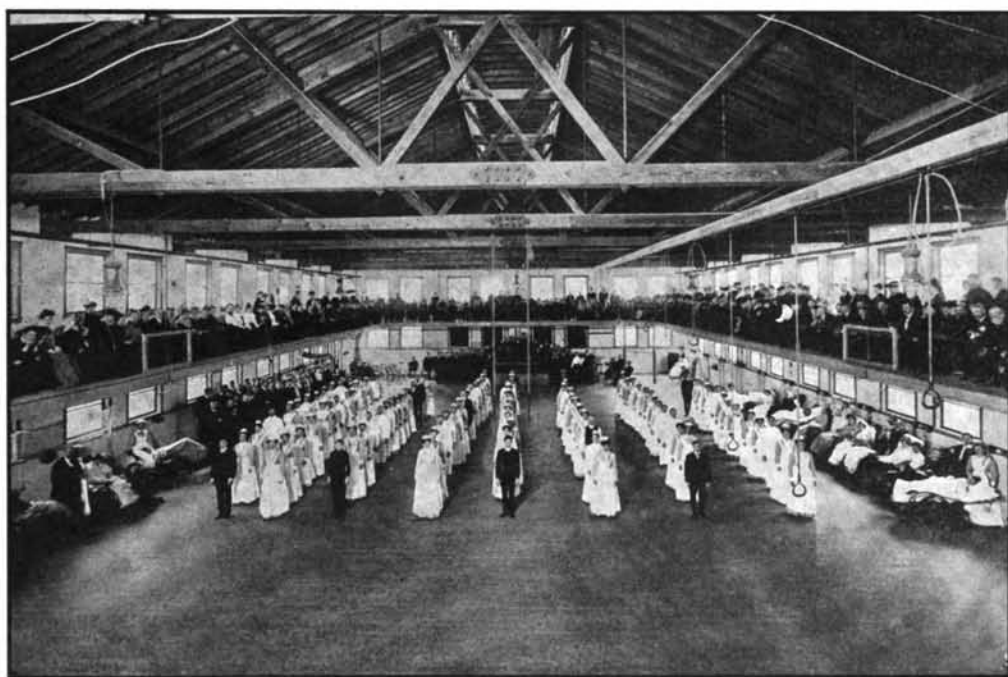
is made up of busy days. The daily program provides something for each hour of the day, from six in the morning till nine in the evening. By that time the patient is tired enough to go to his room and enjoy a sound and refreshing sleep. At the early hour it is customary to take some light bath in the form of a spray, or plunge into the

chestra at the dinner hour and several evenings a week in the parlor or lobby.

Of Course it is Not Obligatory

upon any one to attend all these exercises. They are there for those who choose and are able to attend them. There are cosy, quiet parlors on each floor besides the general parlors on the first floor. There are reading-rooms, and a good library where all the current periodicals and books may be found. A newspaper stand in the main building with telegraph office in connection is for the convenience of those who have occasion to patronize them.

As the guest arrives at the station in Battle Creek he is met on the platform by the Sanitarium porter, who announces himself and is ready to afford any help, and glad to give every attention to the traveler, who finds himself comfortably and quickly conveyed to the Sanitarium. He registers his name at the desk, is assigned a room according to



THE GYMNASIUM

Little Evidence of Sickness.

The people one meets are almost invariably cheerful and sociable, and evidently enjoying life.

There are, of course, many opportunities for cultivating the amenities of life. People are thrown together at the tables, in the social parlors and reading-rooms, in the treatment-rooms, and in the lobby. Walking and riding parties are formed almost daily. The guests of the Sanitarium are almost without exception people of culture, people who have seen much of the world, and people of broad knowledge and active minds. No better or more agreeable class of people could be called together than are found composing the Sanitarium family. There is a marked absence of the disagreeable and troublesome conventionalities of so-called fashionable society. People are not here for the purpose of making shows or creating sensations. Ultra-

pool, or to have an attendant rub the body with a towel or mittens wrung out of cold water. Then at seven there are breathing exercises under a competent director, either in the open air or in the gymnasium. At seven-twenty there is family worship in the parlors, and at seven-forty breakfast is served. At nine is general gymnasium exercises, and at ten the treatment rooms are opened and in action till twelve or after. Dinner is served at one o'clock; and from two-thirty till five there is some lecture, demonstration, or social exercise going on, together with walking, riding, tennis, or other diversions. Afternoon treatments are given from four-thirty till five-thirty, to those who require them. At six supper is served, and at seven general gymnastic exercises are again gone through. At seven-forty-five there is a lecture or entertainment in the parlor. Concerts are also given by a well-trained or-

his wish, is there in a few minutes, his luggage with him, and soon he is in the hands of those who are looking out for his needs, whatever they may be. It is incumbent upon every employe to show to each guest the utmost consideration and courtesy, especially in consideration of the fact that he is likely to be weary and sick, and to need special care.

It is well to announce one's coming a few days in advance, which will insure things being in all readiness for one's reception. It is not necessary for people who are not accustomed to going among strangers and are of a retiring disposition to hesitate about coming to the Sanitarium, for though the place is a large one, no one is overlooked, and no one has any difficulty in finding his place and receiving every needed attention. No one will be troubled with *ennui* or homesickness who will take at all kindly to his or

her surroundings, and everything will be done to make a stay at the Sanitarium pleasant, homelike, and profitable. And we may say that this homelike feeling and the atmosphere of Christian courtesy are so prevalent as to form the subject of constant comment by those who come to experience them.

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 topics.

QUESTION. What is the cause of poor circulation?

ANSWER. The principal cause of poor circulation is spasm of the blood-vessels. That is the beginning of arteriosclerosis. Intestinal autointoxication produces a contraction of the blood-vessels. You have seen people who were very sick at their stomach, and you noticed the face was pale, because the blood-vessels were contracted. The blood-vessels of the face contracted because there was a poison in the stomach that needed to be eliminated. Some portion of this poison had been absorbed into the blood, and that poison was causing contraction or spasm of the blood-vessels. Similar poisons are produced in the colon lower down. Poisons in the stomach cause nausea, but poisons further down in the intestine may not produce nausea, but being absorbed into the blood, they produce spasm of the blood-vessels. That is why some people look so pale. And these same poisons cause contraction of the blood-vessels of the hands and the feet and limbs, and when they do that, the hands and the feet will be cold. Coldness of the hands and feet is generally due to this intestinal autointoxication, causing a contraction of the arteries which will not permit a sufficient amount of blood to circulate through the parts to keep them warm.

Q. Does one ever get over it?

A. Most assuredly he can get over it. Get over the autointoxication. Get the alimentary canal clean, get the inside of the body as clean as the outside of the body is, and the difficulty will disappear at once, because the cause will be removed.

Q. I have lost ten pounds in one week on a Sanitarium diet. I am afraid I will never get it back.

A. You are one who came here to be reconstructed. In order to reconstruct you we have to take off the old man before we can put on the new man. The process of reconstruction here is to get the old man worked off in the bathroom, in the gymnasium, wear out the old man; then you go upstairs to the dining-room and put on the new man. That is why we are so particular about the kind of food we give you; we want to furnish the right sort of material for constructing a new man; we want the old man to be a good, clean, wholesome, and a substantial sort of

A CHANCE FOR STUDENT NURSES

THE BATTLE CREEK SANITARIUM AND HOSPITAL TRAINING SCHOOL FOR NURSES

offers exceptional advantages to those who contemplate taking up the Nurse's profession. A Three-Years' Course is offered to Women, and a Two-Years' Course to Men. Over two hundred Nurses are employed in the institution.

The demand for Nurses who are trained in the Sanitarium principles and methods is constantly increasing, both in the institution and outside. A good salary awaits those who finish the course.

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SANITARIUM

Battle Creek, Mich.

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NAMES

ADDRESSES

man; so we must furnish good material. If you are going to build a new house you have to tear down the old one before you can build the new one. So don't be sorry you lost ten pounds; say good-bye to it with pleasure, and pretty soon you will have another ten pounds that is a great deal better. It is easy to gain flesh. All you have to do is to eat a few more calories. If you have lost ten pounds on the Sanitarium diet, it is because you do not eat calories enough.

Q. If one has auto-intoxication, is it possible to tell whether the seat of the trouble is in the colon or the small intestine?

A. If one has chronic auto-intoxication, it is not in the colon alone; it is in the entire body. The source of the trouble is in the colon, the intestine, and the liver; they are all involved in the difficulty. The kidneys are also very often involved in the trouble, because a healthy body is able to deal with this poison to a very large extent without there

being any particular evil effect experienced from it. When you get to the point where you feel bilious, where you have a bad breath, a bad taste in your mouth, and a tongue that is coated, a sallow skin, and other symptoms of intestinal auto-intoxication, then your poison-destroying, poison-resisting mechanism is broken down, and that is the reason why you feel it. Frequently the chief trouble is in the colon.

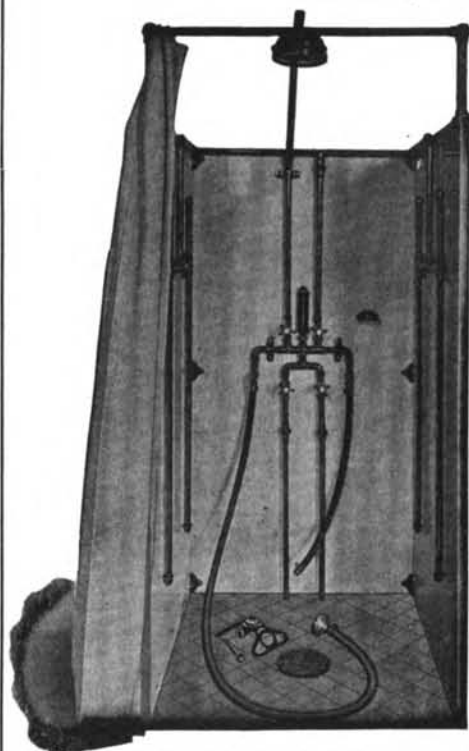
Q. Why should yogurt be made from skimmed milk?

A. Because the *bacillus Bulgaricus* acts upon the fats and produces an unpleasant flavor, so it is better to use skimmed milk which contains little or no fat. Then the cream may be added at the time when the yogurt is eaten.

Q. What causes the tongue to have a burning sensation when a person is suffering from indigestion?

A. It may be due to ulceration of the tongue, or to reflex nervous influence.

"The Greatest Tonic in the World"



Q. You have still to enjoy the greatest thing in the world if you are not yet taking a cold shower—rain, needle, or spray—every morning. Nothing in all this wide world can equal it as an eye-opener, appetizer, and invigorator. It makes you all aglow with that fine feeling that life is worth living.

Q. Would you pay a hundred dollars to enjoy this luxury in your own home every day for the rest of your life? It sounds incredible, but that is really all you have to invest to secure the KELLOGG HOME DOUCHE, which can be installed in your own bathroom, ready for immediate use at your own pleasure.

Q. With your hand in easy control of the water valves, you can take your choice of the shower from above, the needle spray from the sides, the ascending douche from below, the jet or the spray from any position—or combine any and all to suit your royal will, at any temperature you can stand, cold or hot. Truly a royal treat, to say the least.

Q. The Kellogg Home Douche gives you in a more convenient form practically the same advantages as the

celebrated Kellogg Douche Apparatus now in use everywhere in sanitariums, hospitals, treatment rooms, gymnasiums, etc. And the Home Douche dispenses with the attendant—you operate it yourself, and get as good results.

Q. And if you use it daily, you may steer clear of the day when you have to go to a sanitarium to get water treatment as a cure. Get it now as a preventive—in your own home.

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The Kellogg Home Douche Apparatus, complete with attachments for Spray, Fan, Jet, and Ascending Douches	\$100.00
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Three Kiln-dried Hardwood Slabs with wood basin and floor drain (the wood basin is to be filled in with cement by your mason), extra	35.00
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Battle Creek, Michigan

ARRIVALS

THE following persons registered at the Sanitarium as guests during the week ending October 22, 1911: T. C. White, New York; Miss Callery, New York; F. C. Shafer, Detroit; Marcus Rorssell, Jr., Mex.; Jas. W. Kepperley, Indianapolis; Valentine Oriate, Mex.; Wm. Burtless, Manchester; Mrs. Howe G. Brown, Minneapolis; M. Blumberg, Ind.; W. J. Lyons, returned; J. F. Joyce and wife, Chicago; E. A. Binder and wife, N. J.; J. T. McCormick and wife, Detroit; C. B. Harner, O.; James W. Nitschke, O.; Mrs. C. S. Chase, Detroit; D. C. Gibbs, Mich.; Miss Chase, Detroit; Harper Reed, Ind.; Thos. Frost and wife, Mich.; A. F. Stauffer, O.; Mrs. Eulyn Fletcher Copp, Brooklyn; Fred Easton, Mich.; Walter Sutton, Mich.; Annie Campbell, O.; J. O. Pace, Ky.; Chas. W. Wright, Minn.; Mr. and Mrs. C. N. Sturur, Salt Lake City; W. C. Frontz, Pa.; P. S. Boland, Pa.; Mrs. W. S. Sweet, O.; H. M. Eicher, Ia.; Mrs. G. r. Sanborn, Ore.; A. C. Briggs and wife, O.; Mrs. H. C. Holloway, Ill.; Miss Harriet Clarke, Toledo; Mrs. W. J. Winterbaum and Mrs. Louis Winterbaum, Toledo; Anton Bauman, Neb.; Arthur Kennard, Miss.; Mrs. Anna M. Youngren, Japan; Mrs. John A. McClelland, Portland; Mrs. E. A. Richards, Portland; Mrs. M. Cobb, Boston; Mrs. M. Moore, Boston; John J. Lenney and wife, Va.; Geo. B. Cowles, O.; Raymond Cowles, O.; Al. B. Levi, Denver; Mrs. C. Hanna, Dubuque; Frank McJoelace and wife, O.; B. W. Taylor, Detroit; H. Barmby, Detroit; Alex. C. Gaetzie, N. Y.; Jas. Asheroft, Mo.; J. D. Henderson, Ala.; W. A. Kreider, Chicago; L. D. Morton, O.; Wm. Metzel, O.; H. Q. V. Ramier, Milwaukee; H. D. Cuthbert, N. Y.; N. M. Gorian, N. Y.; J. A. W. Weden, Jr., Toledo; S. H. Pardue, O.; Ruth H. Otis, N. Y.; Mrs. R. L. Orme, Md.; Mrs. M. S. Ragh, Kansas City; Leo Lash, N. Y.; Samuel Lash, N. Y.; H. A. Hutchins, Mich.; C. A. Fuller and wife, N. Y.; L. M. Harsh and wife, O.; H. Allan, Can.; T. O. Lutz,

Chicago; Henry Knippenberg and wife, Indianapolis; John H. Parks, Mich.; H. M. Moneosty, Mich.; Dr. A. M. Darling, Mich.; Leo Delonine, Mich.; Mrs. J. F. Zimmerman, Milwaukee; M. B. Craighead, Ind.; R. C. Rudisill, Ark.; Dr. J. W. King, Neb.; Mr. and Mrs. Piehards, Mich.; J. M. Grumm, Ia.; Mrs. C. S. Mott, Mich.; Jas. Chapman, Eng.; Louise S. Stanley, Ind.; C. H. Chopany, N. Y.; E. M. Bowman, Chicago; B. H. Turner, Ia.; Mrs. L. P. Wood, N. Y.; Matie L. Jones, Mich.; Mrs. Eugene Simon, New Orleans; Mrs. J. Perrin, New Orleans; S. C. Wahne, N. Y.; Anna L. Center, Indianapolis; Ruth Hemenway, Ill.; Miss Loure, Detroit; Cyntia A. Allen, O.; Mrs. Helen Doland, N. Y.; C. Clark, N. Y.; Mrs. Elis, Mich.; J. H. Kingman, Mich.; E. D. Maeden, Turkey; E. H. Reynolds, Chicago; Bettine Bradley, Ia.; F. O. Bates, O.; Mrs. W. R. Reynolds, Jackson; Edward H. Jones, Fla.; John T. Troll, Jr., Cleveland; Albert McCurdy, Ia.; P. E. Sprague, O.; T. C. Tanke, Buffalo; Eugene Tanke, Buffalo; James F. Nicholls and wife, Sanitarium; Miss H. Moore, Chicago; Bertha Whitridge, Ind.; Miss Whitridge, Ind.; Mrs. L. W. Smith, Ill.; W. M. Everett, Sault Ste. Marie.

News and Personals

The Question Box on Monday evening was conducted by Doctor Riley, who answered many queries that were raised in regard to nervous and kindred troubles.

Among physicians who are taking treatment at the Sanitarium are Dr. P. S. Boland, of Carbondale, Pa.; and Dr. Nellie Fairfield, a practicing physician of Denver, Colo.

Mrs. Foy, superintendent of the Nurses' Department, and her sister, Dr. Minnie Staines, have gone on a vacation to Manitou, Colorado, where they expect to spend several weeks in recuperation and rest.

Miss Anna Campbell, who was a graduate of the Nurses' Training School of the Sanitarium, is here taking a course of treatment. Miss Campbell was a friend and classmate of Mrs. Foy, who is now at the head of the Sanitarium Training School.

Mrs. Etta D. Marden, of Constantinople, has returned to the Sanitarium for a period of rest. Mrs. Marden has been one of the most successful speakers in the recent missionary campaigns, and her friends gladly welcome her back to the Sanitarium.

Mr. S. S. McClure, the well-known publisher of *McClure's Magazine*, of New York, has returned to the Sanitarium for a period of rest and recuperation. Mr. McClure is well known to the Sanitarium family, among whom his genial presence is always welcome.

Mr. and Mrs. James F. Nicholls are gladly welcomed back to the Sanitarium, which has been for so long a time their home. They have just returned from a trip to Europe and have been spending some time in the

Sanitarium in Caterham, Surrey, which is conducted upon Battle Creek principles.

Mr. H. M. Eicher, a well-known lawyer of Washington, Ia., has returned for a course of treatment in the Sanitarium; also Mr. C. C. Clarke, of New York City, prominent in real estate, who is here by recommendation of Mr. Gifford Pinchot; and Mr. A. D. Bassell, a prominent business man of Lost Creek, W. Va.

Dr. James Chapman, president of the Southlands College, Battersea, England, is a recent arrival at the Sanitarium. Doctor Chapman, who is a well-known educator and a prominent man in his denomination, was a delegate to the great Ecumenical Methodist Conference which has just closed in Toronto, and served as secretary for the English section.

Among the list of returned patients we notice the names of Mr. I. P. Baldwin, of this city, who was here as a patient during the fire of 1902; also Mr. J. O. Pace, of Bowling Green, Ky., who is well known in life insurance interests; also Judge Jesse Arthur, of this city, who is taking a period of rest and recuperation; and Mr. Geo. H. Emerson, well known in the lumber interests of Hoginaw, Wash.

Sabbath afternoon a large audience gathered in the parlor at a service in which some very interesting and striking poems were read. Mr. Ivers A. Tenney illustrated the same in crayon drawings on the blackboard. Mr. Tenney is an artist of exceptional ability in this line, and the skill and felicity of his illustrations aroused the admiration and esteem of the audience, who regarded with close attention and evident appreciation, both the poems and the illustrations.

In the list of recent arrivals at the Sanitarium we notice the names of Mr. C. N. Strewell, of Salt Lake City, a well-known merchant and inventor, who with his wife is taking a course of treatment at the Sanitarium; also Mr. Charles D. Wright, a banker of Fergus Falls, Minn.; Mr. A. S. Stauffer, a merchant of Mt. Vernon, Ohio; Mr. Walter Sutton, of Lansing, Mich., in which town he is the manager of the International Harvester Co.; also Mr. H. P. Allen, of London, Ont., and Mr. J. H. Kingman, of Sturgis, Mich.

Dr. A. F. Hillman spent a few days at the Sanitarium, preparatory to starting for Korea, where she is to serve as physician in the Methodist Hospital at East Gate, Seoul. Doctor Hillman was much interested in the method of treatment employed in the Sanitarium, and expressed great interest in the research work of the laboratories. Other missionary arrivals are Rev. Cowles, of the Congregational mission in Natal, South Africa, who with his son is taking a course of treatment here; and Miss Garvin, a Methodist missionary of Japan; and Mrs. Menzies, of the Methodist mission in Cuba.

On Sabbath the daily prayer service was conducted by Mr. George E. Judd, the business

manager of the institution. Being free from treatments, quite a large number of people had gathered in the fifth-floor parlor for the quiet half hour of praise and prayer. This is specially the time when prayer is offered for the sick, and when requests for prayer are often sent in to the meeting. Mr. Judd carefully selected a large number of Scripture quotations bearing directly upon Christ as the healer of disease, and showed how intimate was the connection between the healing of the body and the spiritual healing given by the great Physician.

An interesting testimony is contained in the following extract from a letter recently received at this office from Arkansas: "I feel it incumbent upon me to acknowledge the good I have received from the articles that appear in the BATTLE CREEK IDEA. I am induced by them to keep on the even tenor of the way I have followed for over eighty years. I never ate but little meat, and now eat none at all. I have three brothers and two sisters living. In my father's family were twelve children, all of whom grew to manhood and womanhood. My grandfather never called a doctor except in two cases of difficult labor. He died at the age of ninety-nine, and was never ill."

On Wednesday evening in the main parlor, Dr. W. H. Riley gave one of his interesting illustrated lectures to quite a large audience, who appeared to be deeply interested. The subject chosen was "The Brain." He showed the wonderful complex mechanism of this most important part of the human body, and described in a very striking manner the evil effects of tobacco, alcohol, and the various poisons that are formed in the body as the result of disease, and placed before his hearers in an emphatic manner the importance of living a temperate and healthful life in order to accomplish the highest degree of efficiency and insure the greatest happiness and usefulness.

Mr. G. C. Lutz, a well-known contractor of Chicago, is on this week's list of arrivals at the Sanitarium; also Mr. J. H. Parks, of Crystal Falls, Mich.; also Mrs. G. F. Sanborn, of Portland, Oregon, and Miss Cynthia A. Allen, of Akron, Ohio. Both of these ladies have been long-time friends and patrons of the Sanitarium. Other arrivals are Mr. and Mrs. John J. Lenney, of Norfolk, Va., where Mr. Lenney holds a prominent position in the customs department; Mr. C. S. Mott, of Flint, Mich., where Mr. Mott is a well-known manufacturer; and Mrs. A. P. Perrin, of New Orleans, in which city her husband is prominent in the live stock commission.

The Sanitarium Christian Endeavor held its regular meeting in the chapel on Friday evening. The meeting was led by Dr. W. F. Martin, and the subject chosen was "The Value of Little Things." The subject was strikingly original and was well introduced by Doctor Martin, who showed the important part that seeming trifles have for good or ill. He emphasized the importance of careful attention to detail, and of the far-reaching in-

fluence of a word fitly spoken. Many of the members took part in the discussion and several valuable lessons were drawn from the little, everyday happenings. Miss Thomas played a beautiful piano solo which was based upon the well-known hymn, "Nearer My God to Thee."

On Thursday evening a meeting of the Nurses' Alumni Association was held in the parlor of West Hall. A most enjoyable time was spent by the nurses, of whom forty were present. A program had been prepared consisting of vocal and instrumental music and readings and recitations, after which refreshments were served in a style pleasantly suggestive of autumn time. Social intercourse concluded a very pleasant evening, which was much enjoyed by all. The guest of honor was Miss Anna Campbell, a graduate of the first class of the Sanitarium Nurses' Training School—nearly thirty years ago. Other visiting nurses were Miss Scott, from Portland, Oregon, and Miss Gross, a graduate of 1909, from Colorado.

On Sunday evening Dr. Carolyn Geisel spoke to a large audience in the parlor. Devotions were conducted and the beautiful story of the Prodigal Son was recited by Mr. Judd. Upon this story Doctor Geisel built her address, giving some striking illustrations of the reality of spiritual things, and told a pathetic incident of one of her Chautauqua experiences of a wayward son, who came home too late to find his mother in the home where the light had always been kept burning—but not too late to find the Father who even at the eleventh hour responds to the cry of the repentant child. The earnest attention of the audience showed a deep appreciation among her hearers of the Divine love and tenderness which she was wonderfully helped to present.

Mr. W. L. Wolcott has returned to his home in Columbus, Ohio, where he is the baritone singer in the quartet of the Broad Street Methodist Church of that city. During his stay at the Sanitarium he has frequently contributed to the enjoyment of the Sanitarium family, among whom he made many friends. Mr. R. C. Wieboldt, of Chicago, whose father is one of the well-known merchants of that city, has also returned to his home greatly benefited by his visit to the Sanitarium. Mr. Wieboldt has given much pleasure to the Sanitarium guests by his beautiful violin music. Both these gentlemen have made many friends by their un-failing courtesy and persistent habit of looking on the bright side of things. They will be especially missed in the gymnasium, where they had become well known and where their enthusiasm was most contagious.

One of the most enjoyable socials the Sanitarium Christian Endeavor Society has had, was held on Monday evening in the parlor of the Annex. The aim of it was to promote a closer acquaintance of the individual membership; and the social committee, of which Miss Binder and Mr. Mayhew are the leaders, are to be congratulated upon the success of their efforts. A novel scheme to encourage friendliness was the announcement

that there were four persons in the room each of whom had a quarter, and the twenty-fifth individual who shook hands with them would receive the twenty-five cents. This naturally excited considerable emulation in the "shake" habit. Some very fine music was rendered by Miss Thomas, Miss Stump, Mr. Schively, and others. Among those present were the president, Mr. Wilfred C. Kellogg, Doctor and Mrs. Martin, and Doctor Eggleston.

A most unusual lecture was given in the parlor on Tuesday evening, the announcement on the board that Mrs. Fletcher Cobb, of Brookline, Mass., would lecture on "Harmony and the Child" drawing quite a large audience. The lecturer was most happily introduced by Mrs. Gilerman in a few well-chosen words which created an atmosphere of interest and enthusiasm. One could not glance over the large and keenly interested audience without realizing that indeed a new era has arisen concerning the knowledge and education of the "child." The lecturer illustrated how the difficulties in music can be overcome, and proved that children are as creative in music as in other directions by playing a number of children's musical compositions. The fact that in the last fourteen years 590 teachers have traveled from England, Germany, and every part of America to study in Boston, where alone the normal training is given, is sufficient testimony to the value of this method of teaching music.

The Woman's Missionary Union of Battle Creek celebrated the jubilee of organized mission work by women on the 19th inst. by all-day services. The forenoon and afternoon meetings were held in the Sanitarium chapel. The attendance was large and the interest was well sustained by an excellent program prepared largely through the efforts of Mrs. I. L. Stone, the president, who also presided at the meetings. The addresses of the afternoon were by Dr. Carolyn Lawrence, formerly from Egypt, Miss M. L. Graebe, of India, and Miss Su-i Wang, of China. The service concluded with fifteen missionaries in the costumes of the natives of the countries in which they are laboring, who gave one-minute speeches, the whole occupying just fifteen minutes of time. A large number of the Sanitarium guests availed themselves of the opportunity to attend this interesting and profitable meeting.

The Sanitarium W. C. T. U. held a meeting in the parlor on Sunday afternoon, at which Dr. Carolyn Geisel presided. The speaker was Mrs. Martha M. Allen, Superintendent of Medical Temperance for the World's and National W. C. T. U., who gave an address upon "Science and Alcohol." She reviewed the history of the researches upon alcohol of medical investigations both in America and abroad, and showed how the old ideas that alcohol warms the body and gives strength and stimulation have all been proved to be errors. Especially interesting was her presentation of the interpretation by Prof. W. L. Hall of the researches of Beebe and Reid Hunt. Professor Hall says these researches prove that alcohol is not a food because they show that it is oxidized in the

liver, not in the muscles or glands as foods are oxidized. The liver oxidizes poisons. A collection for the general work of the organization was taken.

The Sanitarium guests had a great treat on Saturday evening, when Miss Ruth Hemenway read in the parlor to a very large audience, Ralph Connor's beautiful story, "The Sky Pilot." From the beginning to the end of her selection, the audience was spellbound; her enunciation is very good, and in her interpretation and impersonation each character passes in imagination before the hearer like real personages. The fact that this is the sixth time that Miss Hemenway has appeared before a Sanitarium audience is proof in itself of the excellent quality of her work. For the last few years Miss Hemenway has been an instructor in the English department of the Illinois Wesleyan University at Bloomington, Ill. This year she has given up teaching and is devoting all her time to public reading. On November 8th she will again visit the Sanitarium, at which time she has promised to give "What Every Woman Knows," Barrie's delightful little story which has been so successfully played by Maude Adams. This will be her last appearance this season at the Sanitarium, for she leaves early in the new year for Los Angeles, which will be her headquarters for the winter months.

Sanitarium Postcards

A series of beautiful illustrations of familiar features and scenes about the Sanitarium, taken by our own artist. Select from the following list. Prices, two for five cents, one dozen for twenty-five cents, sent to any address. Order of the Sanitarium, Battle Creek, Mich. They may be ordered either by number or title.

- 1 Bird's-eye View of Sanitarium.
- 2 Sanitarium in Winter.
- 3 Gents' Bath.
- 4 Gymnastic Drill.
- 5 A Winter Night Scene.
- 6 A Winter Night Scene.
- 7 The Front Entrance.
- 8 Receiving Physician's Office.
- 9 Phototherapy Department.
- 10 Blood-Test Laboratory.
- 11 Ladies' Bath-room.
- 12 Vegetable Greenhouse.
- 13 Corner in Gastric Laboratory.
- 14 X-Ray Laboratory.
- 15 Gymnasium.
- 16 Front Entrance of the Sanitarium.
- 17 Main Building from the College.
- 18 East Hall.
- 19 Palm Garden.
- 20 In the Greenhouse.
- 21 The Main Parlor.
- 22 The Main Dining-room.
- 23 West Hall.
- 24 Northern View of Sanitarium.
- 25 Cooking School.
- 26 Nurses at Chapel Exercises Easter Morning.
- 27 Universal Strength Test.
- 28 Breathing Exercises.
- 29 Breathing Exercises.
- 30 Breathing Exercises.
- 31 The Kitchen.
- 32 Palm Garden Pharmacy.
- 33 Lady Nurses' Dormitory.
- 34 Bath-room Treatments.
- 35 College Building.
- 36 View of the Rear Lawn.
- 37 View from Front Entrance.
- 38 Southern View of Sanitarium.
- 39 Ladies' Indoor Swimming Pool.
- 40 Nurses' Graduating Class, 1910.
- 41 Gymnasium and Bath-rooms.
- 42 Nurses' Graduating Class, 1911.
- 43 Main Building (from College Lawn).
- 44 Sanitarium Annex.
- 45 Sanitarium Annex, from South Lawn.
- 46 The Annex, South Lawn.
- 47 Sanitarium Annex, from Southeast Lawn.
- 48 Sanitarium Annex, North View.
- 49 Sanitarium Annex, Southeast View.

THE BATTLE CREEK IDEA

VOLUME IV
NUMBER FORTY-EIGHT

FIVE CENTS
A COPY

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A Common Complaint

Hyperacidity of the Stomach, and the Proper Diet to Use in Such Cases, is Treated Briefly by Dr. W. H. Riley in a Parlor Lecture

HYPERHYDROCHLORIA is a condition of indigestion where there is an acid dyspepsia, sometimes called nervous dyspepsia, and is quite a common ailment of people under middle age. Sometimes people in later life are troubled with it, but more cases are seen in young adults. There is not only an excessive secretion of hydrochloric acid in the stomach, but there are nervous symptoms with it, with pain in the stomach, discomfort, usually a ravenous appetite, insomnia, and mental depression. Of course, every one does not have all of these symptoms, but they all belong to the disease.

The Diet

in this condition should be one that is free from acid; so a person who has hyperhydrochloria should not eat acid fruits, not because the acid in the fruit is the same as the acid in the stomach, but because the acid in the stomach and the acid in the fruit are both irritating, and as already there is too much acid in the stomach, all acids should be avoided. Everything of an irritating nature, like pickles and highly seasoned foods, pepper and salt, should be avoided; alcoholic liquors should be tabooed. As a rule I think coarse vegetables should be avoided, although they are sometimes allowed.

The article of diet that is indicated is fats. That does not mean that one should make the diet largely of fat, but that more fat than usual should be eaten, because fats, being bland and non-irritating, lessen the secretion of hydrochloric acid in the stomach. It has been proven by actual experiment that when fats are taken into the stomach the hydrochloric acid is diminished; so butter, cream, olive oil, and other foods containing fat are good in cases where there is an excess of acid.

For the starch foods one should eat dextrinized foods in which the starch is converted into dextrin. Many patients, especially

(Continued on page two)

WHO SHOULD COME? WHEN SHOULD THEY COME?

Why People Should Come to the Sanitarium, and When They Would Better Come in Order to Get the Greatest Benefits in the Shortest Time

FOR many years those who patronized the Battle Creek Sanitarium were those who had suffered many things from many doctors, and were nothing better, but rather the worse. They came to the Sanitarium as a last resort. A different state of things is now coming into vogue, we are happy to report, though there is still in some sections a remnant of that foolish old policy. The medical profession no longer holds the Sanitarium and its work under suspicion. A very large majority of the patrons of the institution are those whom their doctors have recommended to come in order to obtain advantages that the ordinary house-to-house practice does not afford.

The Sanitarium System and Methods

appeal to men who have made a study of them, because they are physiological, which is another word for natural. The Sanitarium undertakes to rebuild the wasted and enfeebled systems of its patients by means of those helps that nature has provided for and adapted to that work. It is still true that the most of those who come to us for relief are confirmed invalids, who have for various reasons postponed their coming for a long time, often in spite of the advice of their home physician. Coming to us in a very reduced condition, with low resistance and enfeebled powers, their recovery is necessarily somewhat slow and their cases are rendered all the more difficult by the long delay, and the complications that have ensued as the result.

The Sanitarium does not send out any flaming advertisements boasting of its unheard-of powers to heal every and all the ills and maladies that flesh is heir to.

The Sanitarium Makes No Boast

of its miraculous discoveries or secret remedies, for it has none; it employs no remedies that are not easily available and perfectly

(Continued on page two)

Pellagra and the Simple Life

How Pellagra is Treated at the Sanitarium—Why Dietetics is an Obscure Science—From a Lecture by Dr. J. H. Kellogg

In response to a request found in the Question Box that he should explain pellagra, Doctor Kellogg said:

I can not explain pellagra. I have an idea that pellagra is an autointoxication, an intense toxemia, due to poisons absorbed from the intestine. My reason for believing that is that the only success we have had in treating pellagra, and we have succeeded in helping a number of cases, has been in treating the patient as a very pronounced case of intestinal autointoxication, and endeavoring so to change the flora of the intestine as to introduce a friendly sort of germs that will protect the intestine against the germs that have been growing there and producing pernicious poisons.

A lady went home a few days ago who had spent several weeks with us, who when she came weighed but seventy pounds. She had

Pellagra in a Very Pronounced Form.

Her hands from the wrists down were raw; they were in a state of very pronounced characteristic eruption. The mouth was very sore, the bowels were very loose, and she was very much emaciated and depressed. She went away weighing one hundred pounds. This was the most she had weighed in a good many years. She went away apparently well and strong, with a good color and not a single symptom of pellagra. True, she may have a relapse. Persons who have suffered from autointoxication of any sort are very subject to a relapse unless they live carefully.

How many people there are who sell their birthright for a mess of pottage. Esau is held up as an example of warning to the whole world, for he sold his birthright for a mess of pottage. Your birthright, my friends, is the right to live, to enjoy good health, and a long, useful life. That is the birthright everybody has, and nobody can deprive you of it but yourselves. But the

majority of people sell their birthright, throw away their opportunity to live and enjoy this splendid world of ours just for a mess of pottage, for trifling gratifications which destroy health and life.

Time to Understand Dietetics

It is time that we began to learn something about dietetics. I was reading an article on vegetarianism in *Harper's Monthly* not very long ago by Doctor Hall, of Great Britain. He is a man of some standing. I do not often talk about vegetarianism, because I do not believe in vegetarianism in its strict sense. Vegetarianism means we must not under any circumstances eat anything but vegetables. I believe in abstaining from flesh; but we are not absolutely vegetarians. I believe in abstaining from flesh food not altogether for sentimental reasons, but because of scientific reasons. Doctor Hall said that the subject of dietetics is a most difficult one, concerning which at the present time we know very little. Dietetics a difficult and abstruse question! Why, when a sheep is born into the world it does not have to go and ask a professor of dietetics what it should eat. Is the subject of dietetics an abstruse question for sheep? What would all the sheep do if they were in ignorance about what they ought to eat? And how about the cows and the horses, the mules, donkeys, chickens, and even the pigs? They all know what to eat.

Sanitarium Postcards

A series of beautiful illustrations of familiar features and scenes about the Sanitarium, taken by our own artist. Select from the following list. Prices, two for five cents, one dozen for twenty-five cents, sent to any address. Order of the Sanitarium, Battle Creek, Mich. They may be ordered either by number or title.

- 1 Bird's-eye View of Sanitarium.
- 2 Sanitarium in Winter.
- 3 Girls' Bath.
- 4 Gymnastic Drill.
- 5 A Winter Night Scene.
- 6 A Winter Night Scene.
- 7 The Front Entrance.
- 8 Receiving Physician's Office.
- 9 Phototherapy Department.
- 10 Blood-Test Laboratory.
- 11 Ladies' Bath-room.
- 12 Vegetable Greenhouse.
- 13 Corner in Gastric Laboratory.
- 14 X-Ray Laboratory.
- 15 Gymnasium.
- 16 Front Entrance of the Sanitarium.
- 17 Main Building from the College.
- 18 East Hall.
- 19 Palm Garden.
- 20 In the Greenhouse.
- 21 The Main Parlor.
- 22 The Main Dining-room.
- 23 West Hall.
- 24 Northern View of Sanitarium.
- 25 Cooking School.
- 26 Nurses' Chapel Exercises Easter Morning.
- 27 Universal Strength Test.
- 28 Breathing Exercises.
- 29 Breathing Exercises.
- 30 Breathing Exercises.
- 31 Breathing Exercises.
- 32 The Kitchen.
- 33 Palm Garden Pharmacy.
- 34 Ladies' Graduating Class, 1910.
- 35 Bath-room Treatments.
- 36 College Building.
- 37 View of the Rear Lawn.
- 38 View from Front Entrance.
- 39 Southern View of Sanitarium.
- 40 Ladies' Indoor Swimming Pool.
- 41 Nurses' Graduating Class, 1911.
- 42 Gymnasium and Bath-rooms.
- 43 Nurses' Graduating Class, 1911.
- 44 Main Building (from College Lawn).
- 101 Sanitarium Annex.
- 102 Sanitarium Annex, from South Lawn.
- 103 The Annex, South Lawn.
- 104 Sanitarium Annex, from Southeast Lawn.
- 105 Sanitarium Annex, North View.
- 106 Sanitarium Annex, Southeast View.

Man is the Only Creature,

apparently, that is at a loss to know what to eat. Every animal that lives knows instinctively what to eat. It has an intelligence within that tells it what to eat. Man seems to be lost in the maze of error. He has been wandering away so far from the right road that he has become absolutely tangled up, and he has not the slightest idea which is the right way. That is what this institution is for, it is to help to point the right way.

Professor Hall said that the fact that the primitive man was not an eater of flesh, is no evidence that we should not be, because if we want to find out what is the diet of the horse, we watch to see what he eats; so if we want to find out the natural diet for man, we must watch men and see what they eat. He said that whenever we find a widely prevailing practice, that is the natural practice. The fact that it is widely prevalent is evidence that it is natural. Accordingly, it is perfectly natural, normal and proper for us to live in houses without ventilation or sunshine. It is perfectly healthful for us to drink water that is full of typhoid fever germs. That is what everybody was doing forty or fifty years ago. It is perfectly natural to cultivate all these unhealthy and unnatural prevailing practices because they are almost universal; so they must be all right. "Whatever is right." But this is false philosophy. What the primitive man ate is just as natural for man now as it was for primitive man. He had an instinct which told him what was right, just as the monkey and the horse and the cow and the sheep have. But the modern man has smothered his instincts, has indulged in all sorts of absurd, unnatural foods until he has destroyed his native instincts and no longer knows what is good for him. When a baby is born into the world, about the first thing it wants is something to eat, and it has an instinct that tells it all about how to eat. The baby does not have to be taught to eat. But when this baby is grown up, he knows nothing about it. Why is it the adult does not know as much as the baby does about dietetics? Simply because we have been led astray by our customs and prevailing habits. So we must begin to find our way back to natural ways, and when we once find the right way, we must stay in it.

WHO SHOULD COME?

(Continued from page one)

free and easily reached by even the poorest of people; but it does undertake to instruct the people in regard to their troubles, and how to avoid them, and it undertakes to make a scientific and practical application of the simple remedies of an open-handed nature to the diseases that are brought here, and with no small success.

Those should come here who are in physical trouble and wish to get right and stay right. And they should wish this so much that they are willing to follow the plain indications of the natural laws of health. Contagious diseases are not received here, because it would be preposterous to expose to the danger of such contagion the multitudes who come here for other causes. But other

cases that are still within the range of possible cure are received and treated, and many desperate cases are helped to recovery.

As to the time when people should come, it is only to be said that the sooner a difficulty is met, the more rapidly it will be removed. There is no possible advantage in delaying the treatment of a serious malady. In fact, the best time to remedy a disease is before it appears. The time when sickness may be most successfully treated is before it occurs, and that saves a lot of suffering and loss of time and money. So the

Sanitarium Advises Well People to Come and Learn How to Avoid Sickness.

Take a few weeks to learn how to live. This can be done at any season of the year, but the autumn and winter months are in some respects the most favorable, because the crowd is not here, and physicians and attendants have more time to devote to individuals than when their lists are overcrowded. But to invalids we say that the sooner your cases are taken in hand, the better it will be for both the patient and the doctor. The winter and fall are very favorable seasons for coming to the Sanitarium for treatment. The winter climate in Michigan is no menace to health and comfort; on the other hand, it is in many cases the very opposite. Every preparation is made for the comfort of guests, and there is no suffering and no disadvantages arising to even the most feeble on this score.

The time required for treatment will be largely determined by the promptness with which the difficulty is met. The dread of going to a hospital, which is so prevalent, has no place in contemplating a visit to the Battle Creek Sanitarium; there are very few of the hospital conditions in evidence. It is more of the nature of a large and congenial family of people bound together for the time by common interests and all engaged in the work of the great University of Health.

A COMMON COMPLAINT

(Continued from page one)

cially young men, complain of a heavy feeling in the stomach after meals. They speak of it as being like a load; the stomach is distended with gas, and they have discomfort there and an unpleasant feeling through the whole body.

Many of these cases are

Caused by Poorly Cooked Vegetables,

warm breads, soda biscuits sometimes only half baked, and food of that kind, and they go on from week to week and month to month, and they are bound to have a hard time with that kind of food. The starch in that food is not digested, and one principal reason why it is not digested is because the excessive acid in the stomach neutralizes the saliva before it acts upon the starch in the stomach, and stops digestion. We should chew our food, and one purpose of chewing is to have the saliva well mixed with the food. The saliva is alkaline, and starchy food is digested by the saliva. In the normal stomach the starch is digested by the saliva after the food reaches the stomach; the saliva continues to act upon the starch about half an hour, or until such time as the nor-

mal acid in the stomach neutralizes the alkalinity of the saliva which has been swallowed into the stomach. But if there is twice as much acid as there should be there, the excessive acid in the stomach quickly neutralizes the alkalinity of the saliva and starch digestion stops.

The stomach juices do not digest starch. Saliva digests starch in the mouth and after the food is swallowed into the stomach. Starch digestion goes on in the stomach, but not on account of anything that the stomach secretes, but by means of the saliva which is swallowed with the food. One of the worst things a person who has an excess of acid in the stomach can do is to eat poorly cooked starch. So, to obviate this trouble, the starchy food should be predigested, or at least partially so.

The question may arise, What are dextrinized foods? They are breakfast toast or zwieback, corn flakes, rice flakes, wheat flakes—all of the cereals that are cooked at a high temperature until they are toasted and the starch is converted into dextrin. The crust of bread is more desirable than the inner part of the loaf because it is more digestible, and the reason why it is more digestible is because the starch has been converted into dextrin by the heat coming in contact with the outer part of the loaf more than it does with the inner part. Bread may be cut into slices and re-baked in an oven until it is a light brown color clear through, when it will be crisp, sweet, and easily digested.

One who has excessive acid should take

Protein in Small Quantities.

He must have some protein; but the protein food is digested by the secretions of the stomach, and the more protein he has to digest, the more the stomach has to secrete; so we take the work off the stomach and give it a rest so it will not be excited to make so much acid. There are certain elements in meat that stimulate the flow of the hydrochloric acid more than other protein matter. We must have some protein, of course, but it is to be found in the vegetable foods preferably. People sometimes get wrong ideas about these foods; they think if we tell them they must eat fat, that they must make the whole meal of fat. And if we tell them they must keep the protein low, they get the idea somehow that they must eat no protein at all. Neither is correct.

So, in the diet for hyperhydrochloria the first consideration is to avoid everything that is irritating—alcoholic liquors, tea, coffee, highly seasoned foods, salt, acids and an excess of sweets should be avoided, and coarse, irritating foods. The individual may eat freely of fats consisting of butter, cream, and olive oil. His starch should be in the form of dextrinized foods. Poorly cooked vegetables, poorly baked bread, and warm bread should all be avoided, because starch in that form is irritating to the stomach, and starch should be taken in the form of the crust of the bread, or zwieback, or breakfast toast, or baked potatoes; and there should be a small amount of protein, not more than one-tenth the total ration. Yogurt buttermilk is also good, but it is better to add cream to it. Some people

will be able to take certain foods which others might find irritating, and of course such persons should avoid these foods. These are, of course, general principles, and some modifications may be necessary in different cases.

A NOTABLE GUEST AND HER WORK

MRS. MARTHA M. ALLEN, of New York, superintendent of the department of medical temperance for the World's and National Woman's Christian Temperance Union, is staying at the Sanitarium for two weeks to study the methods of the institution and to take the treatments. The objects of the work of which Mrs. Allen is superintendent are: To inform the public of the objections to the medical use of alcoholic drinks now held by many successful physicians; to show the dangers in the home prescription of alcohol and other powerful drugs; to expose fraudulent and dangerous proprietary and patent medicines, and liquid "foods" made up with alcohol; to work against fraudulent medical advertising; to endeavor to win the attention of physicians who prescribe alcoholic liquors to the teachings of great leaders in their profession who have abandoned such practice; to gain the co-operation of nurses in educating against the self-prescription of alcohol and other injurious drugs; to rid the country of the whiskey drug-store; to educate against the use of soft drinks made up with cocaine and caffeine.

Some of the results of medical temperance agitation are: The national pure food law requires the percentage of alcohol in patent medicines and the presence of different dangerous drugs to be stated upon the label. The prohibition law of Georgia forbids physicians to prescribe alcoholic beverages, absolute alcohol only being permitted. Kansas has eliminated the whiskey drug-store. If physicians prescribe alcoholics in Kansas the law forbids charge for them. Two State medical societies and a considerable number of county societies have passed resolutions to discourage the medical use of alcohol. The National Association of Retail Druggists and the American Pharmaceutical Society have for several years been urging that the sale of liquor in drug stores for beverage purposes be stopped.

Mrs. Allen was a delegate from the United States Government to the International Congress on Alcoholism held in London, July, 1909. She was recently elected to membership in the American Association for the Advancement of Science, and a copy of her book, "Alcohol a Dangerous and Unnecessary Medicine," was placed in the library of that association, which is connected with the Smithsonian Institution at Washington.

MRS. ALLEN'S THIRD ADDRESS UPON ALCOHOL

THERE were so many requests that Mrs. Martha M. Allen should speak once more before leaving the Sanitarium that she was prevailed upon to take the Monday evening hour usually devoted to a lecture by Dr. J. H. Kellogg.

She began by saying that there are many women who decline to join the Woman's

Christian Temperance Union because they think they must take alcohol for their weak hearts. These women have not learned the new thought about alcohol. The fact is, physicians now tell us that most of the "weak hearts" are due to indigestion. Doctor Kellogg says people have frequently come to this Sanitarium with a diagnosis of organic heart trouble, and as soon as their indigestion was cured the heart was found to be all right.

It is true that alcohol will give temporary relief in different troubles, for it benumbs the sensations of uneasiness which are so distressing. It also causes dilation of the blood-vessels, relieving the heart temporarily of some work. But a drug which disturbs the mechanism of the heart and blood-vessels is dangerous as a frequent resort. Sir Victor Horsley, a great London surgeon, says that even very small doses of alcohol taken frequently impair the efficiency of the heart muscle. Then if the person contracts an infectious disease he may die of heart failure where otherwise he might recover.

Dr. Matthew Woods, of Philadelphia, says that in cases of extreme exhaustion and fainting, people have often died because whiskey or brandy was given them in the hope of saving life. Railway surgeons now instruct employes in cases of severe accident not to give alcoholic liquor, as that may take away the one remaining chance for life. Whiskey was used for relief of the heart in cases of snake-bite in the days when alcohol was considered a heart stimulant. Authorities upon snake-bite now say that many

(Continued on page six)



PHYSICIANS SCIENTISTS

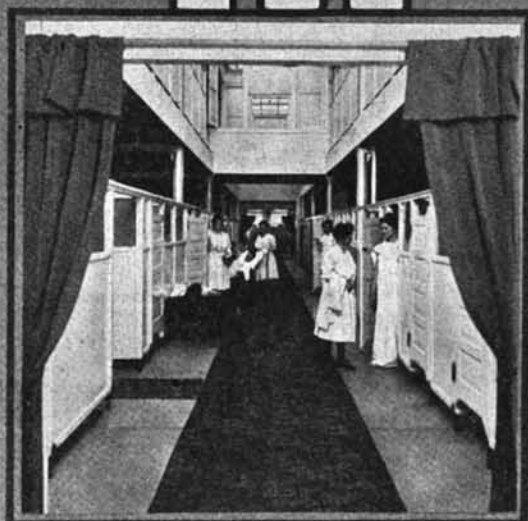
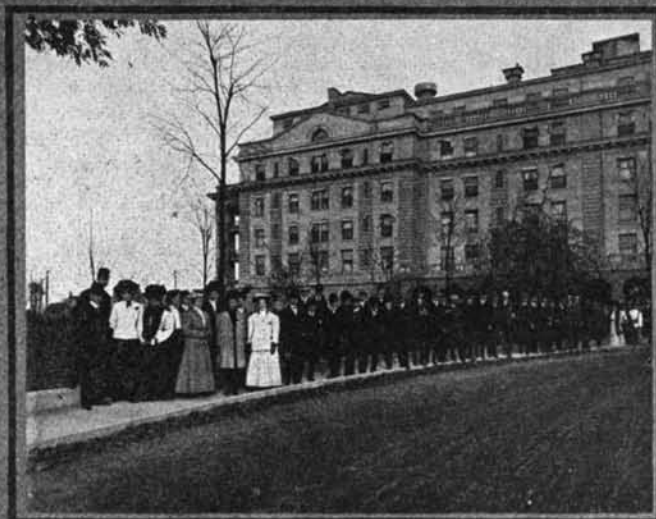
and food experts are constantly questioning the wisdom of a meat diet. They agree that flesh foods, after all, are not essential and that ample nourishment can be found elsewhere.

PROTOSE VEGETABLE MEAT

Invented by Dr. Kellogg, solves the problem of a substitute for flesh; made of choice grains and nuts, rich in all the body-building elements.

Hermetically sealed tins, one pound, 30 cents.

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Dept. N-9 Battle Creek, Mich.



THE reader will be interested in this group of illustrations which present several familiar scenes in and about the Sanitarium during the autumn and winter months. In the upper left-hand corner is a walking party just setting out on an afternoon cross-country stroll. Their jolly faces indicate their anticipations of a happy time. Next to that picture we have a view of the main dining-room situated on the sixth floor, commanding an extensive and beautiful view of the surrounding country, and capable of seating six hundred guests. The third picture is a view of the Main Building taken from the College or administration building across the street. The leaves have fallen from the trees, and the noble outlines of the building may be appreciated. The capacious gymnasium is then shown with its perfect equipment of apparatus. At the reader's left will be seen a limited view in the ladies' treatment rooms; and at his right a picture of the gentlemen's electric light baths. On the lower row is seen the palm garden with its tropical plants and trees growing luxuriantly the year around. The main parlor is shown in the next photograph, with its com-





comfortable chairs and couches, its large open fire, the pianos, and other comforts provided for social purposes and for rest. The large lobby is partially shown next. This is a cross-roads, or clearing-house for the entire family, and where representatives of all parts of the country and all countries may continually be met. Then we show the gents' swimming-pool, which is always open and ready for use.

These cuts do not show anything of three other main buildings on the Sanitarium premises used for the accommodation of guests. These all afford a floor space of nearly twenty acres. The plant represents an investment of nearly two million dollars, and is all devoted to the care and restoration of the sick by the most approved and scientific means.

Those who are interested should write at once to THE SANITARIUM, Battle Creek, Michigan, and obtain further information, which will be furnished gratuitously.



A CHANCE FOR STUDENT NURSES

THE BATTLE CREEK SANITARIUM AND HOSPITAL TRAINING SCHOOL FOR NURSES

offers exceptional advantages to those who contemplate taking up the Nurse's profession. A Three-Years' Course is offered to Women, and a Two-Years' Course to Men. Over two hundred Nurses are employed in the institution.

The demand for Nurses who are trained in the Sanitarium principles and methods is constantly increasing, both in the institution and outside. A good salary awaits those who finish the course.

In addition to the usual subjects taught in hospital training schools, special attention is given to all branches of physiologic therapeutics, including hydrotherapy, radiotherapy, electrotherapy, 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.

For full information address

SANITARIUM - - Battle Creek, Mich.

MRS. ALLEN'S THIRD ADDRESS

(Continued from page three)

deaths supposed to be due to the snake venom were really due to the whiskey given. This view has come since alcoholic liquors have been found to be heart depressants, really heart paralyzants, not stimulants. Alcohol does make the heart beat faster, but the sphygmograph shows the tracings to be those of a heart weakened, not strengthened.

The experiments of Chittenden, Roberts, and others to determine the effects of alcoholic liquors upon digestion have been accepted as proving that alcohol retards digestion. Quite recent experiments show that there are other substances in the malt and fermented liquors besides alcohol, which are hindrances to digestion. Even small quantities of lager beer were found to slow up the digestive processes.

Proprietary "foods," such as liquid peptonoids, have been examined by the Council on Pharmacy of the American Medical Association, and have been shown to be largely alcohol, and of practically no nutritive value. Patients have not infrequently been starved to death on these so-called "foods."

Americans last year spent \$78,000,000 for candy, and another \$25,000,000 for chewing gum, and just about \$320,000,000 more for soda water. These and other interesting figures are from a list of statistics prepared by Congressman J. Hampton Moore, of Philadelphia, and presented by him in Congress for the purpose of showing that even if the cost of living is too high we pay highly for our luxuries, too. His statistics show that the jewelry sold represents more than twice the cost of building the Panama Canal, and that the nickels spent annually for the pink and brown sizzling soda water are sufficient to complete the proposed inland waterway system upon which the Government is at work.

COUPON

Send Us the Names

of interested friends
who you know would
like to have the in-

formation contained in **THE BATTLE CREEK IDEA**, and we will send them free of charge a few sample copies. Simply write their names and addresses in the blank spaces below, cut out the coupon and mail to us, and we will send the papers.

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ARRIVALS

THE following persons registered at the Sanitarium as guests during the week ending October 29, 1911: A. N. Clavet, Port Arthur; M. J. Tedeman, O.; D. C. Gibbs, Mich.; C. M. Hedman, Chicago; Wm. Butler, Mich.; Harper Reed, Mich.; Mrs. H. L. Rowe, Ky.; L. O. Binder, New York; W. C. Murphy, R. I.; Miss M. L. Gerow, O.; Mr. A. B. Funk; Mr. and Mrs. L. A. Dickinson, O.; W. T. Pate, Miss.; Mr. and Mrs. G. S. Barnes, Minn.; D. H. Strotman, Ia.; Gus Krachs, Ia.; D. Wallace and wife, Chicago Heights; E. A. Whitney, Battle Creek; Wm. A. Brubaker, Detroit; Mrs. S. A. Rosenberg and daughter, Arkansas; Mrs. M. E. Bloom, Mrs. H. R. Wilson, Mich.; Mrs. W. J. Tedeman, O.; Geo. C. Cohn, Mich.; Miss Anna Davis, Okla.; Mrs. Geo. C. Cole, Mrs. W. C. Furst, Chicago; Mrs. R. E. Harrsch, Chicago; L. L. Munson, Albany; H. J. Bragg and wife, Mo.; W. W. Munson, Mo.; Anna Gillingham, Ind.; Margaret A. Nichel, Africa; Augusta Timm, Amanda Timm, Chicago; D. J. Sulleran and wife, San Antonio, Tex.; B. Burnus and wife, O.; Mrs. Will Hoffmaster, City; Mrs. P. S. Boland, Pa.; Mr.

Lewis A. Harwood and wife, Mich.; Wm. Elmore, New York; J. C. Martin and wife, O.; W. A. Peck, Grand Rapids; Margaret Shuttleworth, Ind.; Henry C. Schatzkein, N. Y.; Rev. S. H. Kitchner, Ind.; F. W. Bailey, returned; T. T. Clark, Tex.; Mr. L. A. Getz, Mich.; Miss Zella Rayburn, Ill.; I. A. Carpenter, Mich.; Mrs. I. A. Carpenter and Mrs. Henry Frank, Mich.; M. H. Norcosty, Crystal Falls; Rev. and Mrs. C. C. Talbot, Pa.; Henry C. Davis and wife, Ind.; J. A. Caverhill, Can.; Rome G. Brown, Minneapolis; Dr. D. W. Robertson and wife, Ind.; B. G. Bowman, Chicago; Robt. E. Lea, Mrs. Louise Longbert Lea, M. S. Lewis, Conn.; J. B. Knapp Pa.; Mr. and Mrs. M. Davis, Brooklyn; Mr. and Mrs. J. X. Miller, Ind.; Mrs. T. M. Marriett, O.; Sarah Swank, O.; Mrs. J. C. Walker and son; E. S. Davoll, O.; Rev. Frank Roberts and wife, Kalamazoo; Matie L. Jones, Mich.; W. A. Tomlinson, Mich.; Mr. and Mrs. Sidney Mandelbaum, Ia.; J. H. Hazlett, Ill.; G. C. Clark, Ind.; Mrs. J. R. Pryor, Mich.; Thomas Van Dyke, Ind.; E. A. Callison, Mrs. Max Brandy, Lena and Louis C. Brandy, Grand Rapids; Mrs. A. L. Graham, Africa; C. Stockman, Jr., Ind.; John H. Moster, Mich.; J. H. Kingman, Mich.; Mr. and Mrs. H. W. Baumgartan, Chicago; Mrs. Y. G. Griffith, Chicago; Dr. J. M. Griffin, Ark.; Ellis N. Hay, Chicago; J. A. McClelland, Mich.; S. S. McClure, New York; H. C. Haymond, Detroit; T. C. Shafer, Detroit; A. W. Newman, Cleveland; H. A. Ziesel, Chicago.

News and Personals

Mrs. Sarah E. Foote, of Euclid, Ohio, who spent last winter at the Sanitarium, has returned again and is planning to spend the winter here.

Senator H. H. Moriarty, of Crystal Falls, Mich., recently spent a short time at the Sanitarium. He was accompanied by his friend and colleague, Mr. John H. Parks, also of Crystal Falls.

Mr. E. A. Whitney, of Sheridan, Wyoming, a well-known banker, is taking a course of treatment at the Sanitarium. Mr. Whitney is a long-time friend and patron of the institution and always receives a warm welcome.

Mrs. Pugh, of Kansas City, has returned for a course of treatment at the Sanitarium, where she is well known and always welcomed with pleasure. Mrs. Pugh has recently returned from Europe, where she participated in the Coronation and its attendant ceremonials and festivities.

Mr. D. J. Sullivan, a leading banker and business man of San Antonio, Texas, has returned to the Sanitarium for a brief visit, bringing with him his wife and son, who will remain for treatment. Mr. Sullivan has recently erected a million-dollar hotel and office building in San Antonio.

Mrs. Ely, of Olivet, Mich., spent Saturday and Sunday at the Sanitarium with her

daughter, Miss Emily May Ely, who is taking a course of treatment at the Sanitarium. Mrs. Ely has been a long-time friend and patron of the institution, where she has many friends and is held in high esteem.

Mr. L. O. Binder, a business man of New York, and a former patient of the Sanitarium, is here taking a course of treatment and visiting his sister, Miss Dorothy Binder, of the nurses' department; Mr. William Everett, a real estate man of Sault Ste. Marie, has also returned for a period of rest and recuperation.

The most recent missionary additions to the Sanitarium family are Rev. and Mrs. C. C. Talbot, of the United Evangelical Church, who have been laboring in Hunan, China; Rev. and Mrs. J. X. Miller, of the Congregational mission in Madura, S. India; and Miss Margaret A. Nickel, of the Free Methodist Board in Natal, S. Africa.

Mrs. R. E. Harrsch, of Chicago, who is taking a course of treatment at the Sanitarium, is accompanied by her sister, Mrs. W. C. Furst, also of Chicago. Mrs. Harrsch is an old friend of the Sanitarium, where she has often been with her mother and daughter, thus making three generations of the Harrsch family at one time in the institution.

The illustrations in this number are grouped together on pages four and five, and present a very pleasing view of many of the salient and familiar points about the institution. The photographs were arranged on a large sheet and engraved by photogravure at the works of the Gage Printing Company of this city, who are engravers for the Sanitarium, and whose excellent work speaks for itself.

The Mission Study class has commenced a very interesting study on South America; the last meeting was one of considerable interest and was conducted by Miss Ruby Parker. Any "Endeavorers" interested in the study of this country, which is yet to play an important part in the world's history, are cordially invited to attend. The class meets in the fifth-floor parlor on Wednesday evening at 7:45.

In the list of returned patients during the past week, we note with pleasure the names of Mr. John H. Masten, mayor of Homer, Mich., who always receives a warm welcome from his many friends at the Sanitarium; also Mr. A. Shoop, of Marshall, Mich.; Mr. Henry C. Davis, a manufacturer of Kokomo, Ind.; and Mr. G. S. Barnes, of Glyndon, Minn., who with his wife is taking a course of treatment.

The time for the fourth annual meeting of the Medical Missionary Conference has been set for the first week in the new year. The Conference will open on the afternoon of January 2 and will hold until the following Friday evening. Dr. Lemuel C. Barnes, field secretary of the Baptist Foreign Mission Board, has been engaged to preside at

the session. It is expected that a large number of missionaries will be present.

Mr. D. K. Cornwell, who is so well known and highly honored as the longest resident in the Sanitarium, has returned from a short visit to Grand Rapids, Mich., whither he was summoned by the news of the sudden death of his brother. Mr. Cornwell was accompanied by his nephew, Mr. Pelham, who came from Chicago to be with his uncle during the sad visit. The Sanitarium staff and management extend their sincere sympathy to Mr. Cornwell.

The therapeutic value of "Hope" was the theme of one of the Sunshine Hours which are conducted daily in the parlor by Doctor Read. These bright, cheery talks are greatly appreciated by the patients and guests, to whom they convey a great deal of valuable information upon health topics which is given in a very informal manner and with a strict avoidance of scientific terms. Doctor Read lays great stress upon cultivating the "habit of cheerfulness."

Among the latest arrivals at the Sanitarium, we notice Mr. and Mrs. D. Wallace, the former a prominent banker of Chicago Heights; Mr. and Mrs. L. A. Dickinson, of Fremont, Ohio; Mr. W. W. Garth, a retired banker of Columbia, Mo., who with his wife is taking a course of treatment; Rev. S. Hitchner, of the Lutheran Church in Spencerville, Ohio; Mr. W. C. Murphy, a well-known business man of Providence, R. I.; Mr. J. Federman, a merchant of Lima, Ohio;



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To be sure that the building-up process going on in the body equals or exceeds the breaking-down process, requires scientific feeding.

Do You Know How

to plan a scientific diet for yourself—a diet that will keep your body in "fighting trim?" If not, let us assist you.

Write for our free book, "Healthful Living."

THE KELLOGG FOOD COMPANY,
Dept. P-10,
Battle Creek, Michigan:

Please send me a copy of "Healthful Living."

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and Mr. J. H. Hazlett, a lawyer of Hoopes-ton, Tex.

That the Sanitarium has a world-wide reputation has long been evidenced by the many workers from different countries who help to compose its family; but the Christian Endeavor meeting in the chapel on Friday night brought out the surprising fact that almost every country of Europe is represented in the institution. The meeting was led by Doctor Eggleston, and the subject was "Missions in Europe," with special emphasis upon the part taken in each country by the Christian Endeavor movement. The spirit of unity of all nations in Christian work was well emphasized.

On Sunday evening in the parlor of the main building, Mrs. A. L. Grabam, a missionary from Sierra Leone, gave a very interesting talk upon the region in which she had been working for nearly ten years. So deadly is this portion of West Africa that it has long been known by the name of "The White Man's Grave." The audience was very much interested to get this insight into the Christianization and civilization of these primeval tribes. By the aid of the pictures one could follow the daily life and see the success which crowned the labors of these devoted men and women.

On Tuesday evening Mr. William A. Brubaker, of Detroit, Mich., gave a lecture in the parlor, choosing for his subject, "What fools these mortals be!" There was a large audience. The speaker was introduced by Dr. Carolyn Geisel. Mr. Brubaker is chairman of the Prohibition Committee of the State of Michigan, and formerly held a similar position for five years in the city of Chicago. He has a good physique and powerful voice and gained the close attention of his audience. Mr. Brubaker is in great demand as a platform speaker, and lectures on an average three times a day.

The chapel of the Sanitarium was well filled on Sabbath morning, when Bishop W. S. Lewis, of Foochow, preached the sermon. His theme was "The Father Face to Face." On the afternoon of the same day Bishop Lewis gave in the parlor a masterly address upon the "New Birth of an Old Empire." At the present time so much attention is directed to China that the Sanitarium audience was particularly fortunate in having such a scholarly review of past and present conditions in that land, and through them a glimpse into the marvelous future that awaits that wonderful empire.

Mrs. Martha M. Allen, of New York, superintendent of Medical Temperance for the World's and National W. C. T. U., recently spent two weeks in the Sanitarium for rest and for study of the methods of the institution. She says: "I thoroughly believe in the principles of health taught by this institution. The more widely known these principles can be made, the better for the world. The facilities for diagnosis here are wonderful, and the enthusiasm of the heads of the various departments most delightful. I

have thoroughly enjoyed my two weeks here, and shall hope to come again."

Ofentimes little national gatherings are made possible in the Sanitarium because of some special interest either by birth or travel on the part of the patients. Such a one was held in one of the parlors of the Annex building, when Messrs. Freider, Ruppenstein and Hanson, of the Nurses' Department, entertained Mr. and Mrs. R. P. Bowyer, who are taking a course of treatment in the Sanitarium. It was a "Norwegian evening." Mr. Freider sang some beautiful songs in his native language. Mr. Ruppenstein contributed some fine selections on the piano, and Mr. Hanson acted as interpreter of the party.

Mr. Beuchel, superintendent of the Sanitarium laundry, has just returned from a trip to St. Louis, where he made a special study of the institutional work in hospitals and laundries. Extensive additions have recently been made to the Sanitarium laundry in both buildings and equipment. It will be interesting to our readers to know that the Sanitarium laundry handles daily 35,000 pieces, not including the personal laundry of guests and Sanitarium employes. The plant is modern and well equipped with all appliances, and great care is exercised in handling the articles. The department employs about eighty-five people.

Professor Hieronymus, of Eureka, Ill., was a welcome guest at the Sanitarium recently, where he is well known and highly esteemed. Professor Hieronymus was formerly president of Eureka College, but upon his return from his European trip, he resigned the presidency of that institution to accept the position of secretary of the Educational Commission of the State of Illinois. The duty of this commission is to study educational problems, and make recommendations to the legislature pertaining to educational laws. As Dr. James Chapman, president of Battersea College, London, who is a guest at the Sanitarium, is a member of a similar commission in England, it will be readily understood that the meeting of these two kindred spirits was mutually congenial.

Dr. Carolyn Geisel, of the Sanitarium, goes on Friday to Milwaukee, Wis., to attend the National Convention of the W. C. T. U., where she is to be the lecturer for the National Health and Heredity Department, and also for the National Medical Temperance Department. On Sunday night she will speak on "Medical Temperance from a Battle Creek Standpoint," using charts and the stereopticon. Throughout the week she conducts a Health Exhibit, which is labeled the "Battle Creek Idea of Temperance," and which not only shows the pathological effects of alcohol, but the success of non-alcoholic treatments in the cases of thousands of patients annually treated without alcohol in the Sanitarium. The exhibit will also demonstrate the evil effects of tea and coffee and intemperance in diet.

On Tuesday afternoon the main parlor was filled with a large audience of cheerfully ex-

pectant people who had gathered to spend an enjoyable social hour, and judging from the frequent laughter and applause, no one was disappointed. Miss Thomas gave a beautiful piano selection which was well received; and Mr. Irving Steinel contributed a very fine solo, which called forth an insistent demand for an *encore*; while Miss Ruth Hemenway, who is so great a favorite with Sanitarium audiences, contributed some humorous readings in her very happiest vein. Her impersonations of character and dialect are irresistible. The audience sympathized with the bewildered old Scotchman seeking a wife, laughed with the sixteen-year-old schoolgirl, and felt with the tired mother and her questioning boy of three years that "touch of sympathy which makes the whole world kin"!

On Thursday evening considerable interest was excited by the announcement that there would be in the parlor a microscopical demonstration conducted by Dr. A. W. Nelson and his assistants. The Sanitarium orchestra discoursed fine music, and a very eager, interested crowd of people gathered around the long tables that were arranged on two sides of the room. Here, by means of the twenty high-power microscopes, a microscopical study was conducted and rendered intelligible to the guests by our courteous and well-informed assistants of the microscopical and bacteriological departments of the Sanitarium. Specimens of friendly and harmful bacteria were shown, including living typhoid germs. How harmful bacteria are killed by the defenses of the blood was well illustrated. The microscopical structure of the various organs of the body, as the teeth, tongue and muscle structures, was fully demonstrated; and numerous minute parasites infesting the human body were seen in all the vigor and energy of their marvelous development.

Quite a large number of people were gathered in the parlor on Tuesday afternoon to listen to a lecture and demonstration by Miss Lenna Cooper, superintendent of the Dietetic Department of the Sanitarium. Miss Cooper first showed the danger of too high protein diet, and said that neither meat nor meat substitutes were absolutely necessary to a well-balanced dietary. She exhibited charts showing the protein and other constituents of flesh foods, nut foods, and cereals; and drew attention to the fact that a pound of nuts contains in a concentrated form on an average three times the nutritive value of a pound of meat. She also said that nuts should be taken as a part of the meal, and not as an extra "tidbit," and that they should be thoroughly masticated. She then spoke of other sources of protein, as legumes and cereals. The lecture closed with the announcement that patients would have an opportunity on Thursday in the cooking school to practice the art of making such soups and beverages as are served in the Sanitarium. It will be readily seen that not only does the Sanitarium aim to make people well, but in addition tries to disseminate such practical knowledge as shall enable them to retain their health when once it is fairly established.

THE BATTLE CREEK IDEA

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The Cigarette Up to Date

From a Parlor Lecture in the Sanitarium
—Dr. A. J. Read Gives the Result
of His Study and Observation
of the Cigarette

WE are to consider to-night what a great matter a little fire kindleth. Sometimes the

THE GYMNASIUM AS A HEALING FACTOR

A Workshop in Which People Labor for
Health, Under the Guise of Rec-
reation and Diversion

MANY of the ills to which flesh is heir are
to be attributed to a lack of physical exer-
cise. Sedentary habits and employments are

“Taking Cold” A Misnomer

The How and the Why of “Colds” Stated
by Dr. J. H. Kellogg in One of
His Parlor Lectures—How
to Avoid Colds

THAT which we call a cold, by the way, is
not a cold at all; it is a heat instead of a



AT WORK IN THE SANITARIUM GYMNASIUM

smallest things of life have the biggest tale of condemnation attached to them, and in considering the cigarette up to date we may find ourselves justified in believing that it has, though it is very small of itself, a very big
(Continued on page two)

to be blamed for many forms of disease and disorder which afflict men and women. In spite of the fact that the natural place for men and women is out of doors, yet we find them almost invariably preferring indoor oc-
(Continued on page two)

cold; the term is certainly a misnomer. One does not “catch cold,” but the cold catches him, and he gets a fever. The whole difficulty is in the fact that the skin lacks resistance. A wild Indian who lives in the forest or on the plains, does not “take cold.”

UNIVERSITY OF MICHIGAN

I remember very well when a boy my mother cautioned me that I must be very careful to put on my rubbers when I went out in damp weather; I must be very careful not to get my feet wet, lest I should "catch cold." I said to my mother, "Why do not the cows take cold? They don't wear anything on their feet at all; why should I take cold?" I did not understand the philosophy of it, and there is no really good reason why I should take cold by getting my feet wet; it is not natural that we should do it. The feet should be perfectly able to take care of themselves.

Why Does One Take Cold, Anyway?

Simply because either the general temperature or the local temperature of the blood is lowered. If we put cold water on a person's head and keep it on for several hours, frequently he will begin to complain that his forehead is sore and painful and he has neuralgic pains in his forehead; the skin and the flesh are sore. Very often we keep an ice bag over the heart, and after the ice bag has been kept there half an hour two or three times a day for two or three weeks, that patient generally begins to complain of soreness in that region. That is called rheumatism for lack of a better term. It is not rheumatism, but simply a painful, sensitive condition due to the lowering of the blood temperature in that region, so the waste matters have accumulated in these tissues, and the nerves and other tissues have become abnormally sensitive.

The cause, as I said, for taking an ordinary cold, is from the temperature of the blood being lowered either locally or generally. If a person has been perspiring from exercise and sits down and lets the wind blow on him he soon begins to feel chilly. While he was exercising, his muscles were generating heat.

A Muscle Generates Heat

just as a dynamo generates electricity. By the action of the muscle, heat is generated just as by the revolution of the armature of the dynamo electricity is generated, and in a similar way; not in the way a stove generates heat, but in the way in which a dynamo generates electricity, although there is combustion going on.

If a person perspires when exercising, it is because he generates more heat than is needed to keep the body warm, so it is necessary that the body should be cooled, and perspiration is simply the effort of the body to cool off. Bathing the skin with water and allowing the water to evaporate has the effect of cooling the skin. This is the reason why people perspire. Now suppose the perspiring individual ceases to exercise and sits down; it is like putting out a fire or blowing out a light. The extra generation of heat ceases, so the evaporation goes on without any extra heat being produced, because the skin is wet and the clothing contains moisture and the evaporation causes a chilling of the body.

It takes only a few minutes to produce this result, then in order to warm the body up, the muscles are set into spasmodic contraction and

There is Shivering and Sneezing, which are signs of a kind of general spasm. When one sneezes he does not sneeze *with* his nose, but *through* it. It is the whole body

that is exercising. Every muscle contracts. The feet are lifted up from the floor. There is a jump of the whole body. It would be quite impossible to hold anything steady in your hand when you sneeze; but the motion is particularly of the expiratory muscles. There is a sudden contraction of these muscles with an explosive effort of nature to warm the body up.

When you sneeze, you say, "Oh! I am taking cold." That is a mistake. You have taken cold. Your temperature has been lowered and you already have the cold, and that muscular spasm is the effort of nature to cure it. Now if you want to help nature, the best way is to keep right on exercising. You feel a little shiver started here and there, and you feel chilly; now set your muscles to work as hard as you can. That is the quickest way to stop that shivering. I have had that experience myself repeatedly. Certainly one can prevent himself from taking cold. Suppose you are sitting in church and there is a draft blowing on the back of your neck; you say, "I am going to get a cold. I shall have a stiff neck to-morrow, sure." You don't need to have. All you need to do is to make the muscles contract just as hard as possible and keep them working so they will keep the skin warm and you will not take the cold.

If one is exercising he doesn't take cold, and

One Can Sit Perfectly Still and Work

so hard as to make himself perspire freely by making every muscle of his body tense. The hands can be straight at the sides, and the muscles may be perfectly rigid. Make every muscle of the body rigid and you will see pretty soon that you are breathing hard. Pretty soon you are taking deep breaths. You may say that it is hard to do that, but nevertheless one can sit quietly in church, and look the pastor right in the face, and at the same moment work as hard as though he were running to catch a train, and the person next to him need not know anything about it. So one does not need to take cold because he is sitting still, for one does not need to be idle and relaxed while sitting still.

THE GYMNASIUM

(Continued from page one)

cupations. Instead of the active life of agriculture, horticulture, or some other calling that is kin to the soil and to the natural elements, in effeminate weakness we prefer rather to sit in the house, out of the sun or out of the cold. The muscles become weak and debilitated, a weakness that involves the entire muscular system. And when a man's muscular system is run down, weak, flabby and altogether defective, he is in poor shape, is unfit for any serious business, and is

Destined for the Scrap-Heap

very soon so far as any real usefulness is concerned. He may exist for a while as a relic or a near ghost of what he should be, but he is below par when he comes to doing things.

Men who sit at the desk, or stand at counters, women who sit in the parlor, and spend their time in idleness or at the very lightest and least active employment are sure to be deficient in all the functions that require

bodily energy. Consequently, when they come to the Sanitarium, as hundreds of them do, the first thing is to get them into some kind of active employments that will correct their erroneous lives and will develop in some degree at least the neglected muscles.

If this can be made to appear as sport, or diversion, there is usually no difficulty in inducing people to enter upon such a course of training. It is for the benefit of such people that the Sanitarium provides its magnificent gymnasium. The room is

Sixty-Five by One Hundred and Ten Feet,

with a running gallery around it. It is provided with all approved gymnastic apparatus for the development of muscular strength through voluntary activities. And throughout the day the guests of the Sanitarium may be found there at work as for wages, recovering that which they have neglected to obtain through years of inactive life in the past.

In colder seasons of the year, when taking exercise out of doors is not practicable, the work of the gymnasium is in greater requisition than during the warmer season when many of the exercises can better be had in the open air.

At seven in the morning Dr. Mabel H. Otis conducts breathing exercises, which consist of gentle forms of gymnastics calling into activity the various muscles of the body in a manner to encourage respiration and give to the blood a rapid course through the entire body. After breakfast, at nine o'clock, Professor Anton Schatzel conducts general gymnastics, in which a large number of the patients usually participate. After dinner, at three o'clock, breathing exercises are again taken, and at seven in the evening general exercises with marching are again gone through under the direction of a competent instructor. These exercises are all indicated by scientific reasons and are properly called medical gymnastics, because they have a direct therapeutic effect and assist very greatly in restoring the bodily health and strength.

Our illustrations this week show some phases of the gymnasium work in operation.

THE CIGARETTE UP TO DATE

(Continued from page one)

tale of condemnation attached to it. The consequences of cigarette smoking speak for themselves. Anything that tarnishes the innocence and injures the purity of young America, is certainly an enemy of our race. Our children are the most precious treasure that we possess, for the future of our families and of our country depends upon our children. The habits which our children form in their early life mold to a great extent the character which they bear in their after days. The hollow chest, pale countenance, the emaciation and poor physique which many an adult carries are only the natural results of habits formed in early childhood.

Our Future Presidents

will come from among our boys. Therefore the saying of Roosevelt that the conservation of health should be considered as a matter of national patriotism is true.

Right along with this I would like you to read the report of the examining surgeon

who was trying to select recruits for our navy and army. He said, "Ninety per cent of those examined were habitual cigarette smokers and had weak hearts." The difficulty which he found confronting him was this little article called the cigarette. "Cigarette" is a Spanish word. The thing itself is an alien, anyway; it does not belong to this country, but was brought here from Cuba by some young Spanish and Cuban students who came to New York State to study in one of our colleges, and it has spread now all over the country, so that at the present time cigarette smoking in the United States is increasing at the rate of over 400,000 a year, and we do not know what the end will be. So great has been the increase in cigarette smoking and so pronounced have been the effects of it, that it has often led the newspaper editors to write editorials in regard to it.

Of all the people in the world who are not prejudiced against the so-called "little vices," chewing and smoking, are the newspaper editors. And yet Mr. Heart, who, I am told, is a smoker himself, allows his paper to deal with the cigarette in no mild terms because the facts of the daily news warrant it. He tells the story of a young man who managed to

Smoke Himself to Death in Five Years,

in spite of the fact that he was thirty-four years old when he took up the habit. He died a death of atrocious suffering, calling for cigarettes when he was too weak to hold them between his lips. A few days before his death, he became paralyzed in his legs and hands and lost the power of speech. He died three days after he was taken to the hospital.

The editorial continues: "Like all other death-dealing drugs, morphin, opium, cocaine and so on, the cigarette establishes in the human system a craving which it alone can satisfy. After a while it ceases to be able to satisfy the craving which it has created. The victim dies as did this unfortunate man at Syracuse. 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 young children; they also 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 upon his nervous system and his success in life."

As far as I have been able to investigate, the deadly principle of this little enemy is nicotine. There are other harmful factors in cigarette smoking; but as far as the active principle is concerned, the effects of cigarettes are paralleled by the whole tobacco family, the plug and the fine cut, the cigar and the cigarette, and snuff—all go together and belong to one category, having practically the same drug effect, so that in a measure what is said about the effects of the cigarette applies also to the effects of other members of this group. Some prominent men who are authorities and leaders of hu-

man thought have put themselves on record in regard to cigarettes.

Thomas A. Edison

is a very good observer of human nature; having men working under him, he has a chance to observe them. One morning, going into his works, he picked up a package of cigarettes in the corridor. He tacked it to the wall, and beneath it placed this placard: "Some degenerate, retrograding toward the lower animal life, has lost his packet. He may have the same by calling on the storekeeper." This gives in a word what Mr. Edison's idea of the cigarette is.

Dr. Wm. E. Quine, professor of practice of medicine and clinical medicine in the College of Physicians and Surgeons, Chicago, says: "Whether the cigarette causes imbecility, or whether a congenital condition of imbecility leads the individual to the use of the cigarette, I don't know. So far as I am willing to express myself on this subject, I

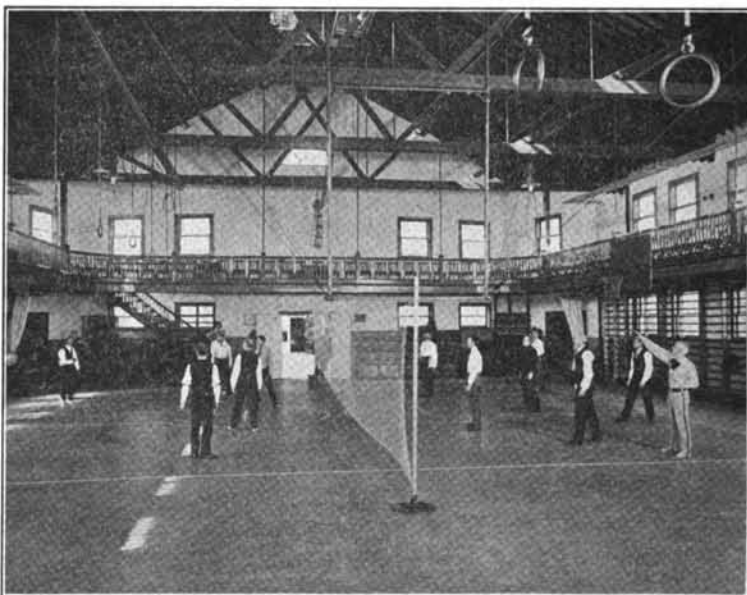
food. Leaves post of duty for spree, shoots himself in a cab." That is the brief life history told in headlines of a poor fellow who, though an intelligent man and a college graduate, snuffed out his life by this vice.

Another set of headlines reads: "Forty cigarettes a day destroy the youth's mind. Sent to the hospital because he wanted to wander naked in the street. Nerve centers weak. Physicians declare patient's mental state is that of a little child."

These are samples of what you may read almost any day in the newspapers, simply introduced here to show what this evil is doing for some of our boys. Not only boys and young men are affected, but in modern times

Some Girls and Some Young Women

think it is especially smart to take up the cigarette habit, and with the universal result that if they become very much addicted to it, the nervous system becomes weakened, and in some cases the reason dethroned, and they



GAME OF VOLLEY-BALL IN THE GYMNASIUM

say sincerely that the cigarette and imbecility are related in some way."

A son says, "Father, what is a dude?" The father replies, "A dude, my son, is a worthless attachment to the damp end of a cigarette."

The tell-tale tremor in the handwriting of the cigarette victim tells more than words or opinions could tell, for we see by the handwriting of a schoolboy who is addicted to cigarettes the evidence of its deadly effects, for so trembly and irregular is his hand that he can hardly write in a straight line or make the letters legible. The reason why the hand trembles is that the cigarettes affect the boy's nerves. They not only affect the nerves of the body, but they affect the citadel of the nervous system, the brain. Here is a case recorded in New York of a young man, a school teacher, who brought himself into prominence before the world in this very sad way, "Smoked 100 cigarettes a day. Frequently left the classroom to smoke. Became addicted to drink. Brain and body seriously affected. Digestion ruined, can not eat solid

share the same fate as the young men when they become addicted to the drug. The effect of tobacco upon the nervous system is very marked, so marked that many people smoke it in the form of cigarettes and cigars or the pipe or use snuff, or chew fine cut, because of the soothing effect upon the nervous system. It is the same reason that leads the morphin victim to take his drug, or the opium smoker to smoke his pipe. The effect upon the nervous system is very well illustrated by the two nerves shown in the illustration. These are the same nerves, one is approximately a healthy nerve, little dendrites coming out from the body of the nerve cell, which intercommunicate with other nerves of the brain and of the spinal cord, so that one can get co-ordination and nerve contact of one set of cells with another. Here is the same cell narcotized, that is, affected by habitual use of a narcotic, so that it has become dwarfed, gnarled and worn out.

The whole body is so permeated with nerves that you can not touch the point of a pin to the skin anywhere without touching

one of those nerves, and yet every one of those nerves becomes affected by the narcotic. The effect, at first temporary, becomes permanent, and may affect any part of the central nervous system or the brain itself disastrously, as has been described over and over again in actual life by the effects that have been produced upon smokers. Superintendent Bodine gives this as one of the surest routes to insanity.

The effect of the cigarette upon the morals is considered to be bad. Not long ago a physician read a paper before a body of medical men in which he claimed that cigarettes make boys lie because of the disturbance in the balance of the nerves; through lack of co-ordination one is not able to discern between right and wrong, as the person who is not narcotized by this drug can do.

Hudson Maxim,

than whom there is no greater authority on poisonous gases, I believe, in the world, gives

LIFE INSURANCE COMPANIES AS CONSERVATORS OF HEALTH

It is perfectly natural that those who assume financial risks on the length of an individual's life should be interested in prolonging that life. And it seems that at last the great life insurance corporations are waking up to the importance of conserving the lives of their policy holders. It is gratifying, too, to observe the way in which they view the problem of life and health. They call to their aid the very best and latest discoveries in the science of right living, and instead of recommending nostrums or trips abroad, or mineral springs or "tonics," so-called, they insist upon simple and temperate habits and careful attention to the conditions of living in a rational use of the most natural methods for preserving health.

Bulletin 5, issued by the Policy-holders' Health Bureau of the Postal Life Insurance

being more and more condemned, tippling and social drinking among the masses would appear to be increasing. Possibly the nervous excitement of American life increases the desire for what we call a "stimulant," but what in reality is a depressing narcotic—a "deadener," instead of a "bracer."

A hopeful sign is the growing tendency to abstinence among the leading men and women of the nation. A reform commencing at the top will progress more rapidly, because of the powerful influence of fashion. When it becomes odd to drink, fear of public opinion may make for temperance more surely than fear of moral or physical injury.

Alcohol Weakens Resistance to Disease.

In acute illnesses—grippe, fevers, blood-poisoning, etc.—substances are formed in the blood termed "anti-bodies," which antagonize the action of bacteria, facilitating their destruction by the white blood-cells, and neutralizing their poisonous influence. In a person with "good resistance" this protective machinery, which we do not yet thoroughly understand, works with beautiful precision, and the patient "gets well."

Experiments by scientific experts have demonstrated that alcohol restrains the formation of these marvelous "anti-bodies."

Alcohol puts to sleep the sentinels that guard your body from disease.

Policy holders are warned against advertisements extolling the value of whiskey in disease. The callous cruelty of such advertisements lies in the fact that they appeal to the very people who are most injured by the use of alcohol—sufferers from rheumatism, chronic kidney disease, nervous subjects, etc.

There is No Such Thing as a "Medicinal" Whiskey.

One pure whiskey is as good (or as bad) as another. Do not take alcohol as a remedy except on the advice of a thoroughly up-to-date physician, who is free from prejudice.

Pneumonia

During the past winter, pneumonia has made a new record as a life-destroyer. The equanimity with which we regard the annual loss of lives from this disease can only be accounted for on the theory that custom has made us apathetic. We look upon pneumonia as a necessary evil.

The plague that is decimating the population of China is regarded with horrified interest, and yet the loss from preventable disease in this country is relatively greater than the mortality from the plague, when we consider the resources of our civilization.

Pneumonia, although a contagious general disease, is seldom a fatal or serious malady provided the patient has normally strong resisting powers. The germ of pneumonia is readily killed by sunshine and fresh air. A high mortality from this disease spells neglect and a low resisting power in the population. Individuals who lead a rational and temperate existence have little to fear from it, except during periods of lowered vitality. At such times, exposure to inclement weather or sudden changes in temperature should be avoided.

Those who lead a careless, intemperate existence, making their bodies veritable laboratories for the manufacture of poisons, must



WORKING FOR HEALTH IN THE GYMNASIUM

his idea of the cigarette as follows: "Owing to the loose structure of the cigarette, its combustion is modified and destructive distillation proceeds with combustion, and owing to the incompleteness of oxidation carbonic oxide inhaled into the lungs enters the blood unresisted, and the damage it does is in direct proportion to the quantities inhaled. Carbonic oxide when inhaled in small quantities produces faintness, dizziness, palpitation of the heart, and a feeling of great heaviness in the feet and legs. These are exactly the effects of the cigarette, and the depression and nervousness which follow as a reaction make the victim crave some balm or tonic for his *malaise*. He is then led to consume the drug in ever-increasing quantities. If all boys could be made to know that with every breath of cigarette smoke they inhale imbecility and exhale manhood; that they are tapping their arteries as surely and letting their life blood out as truly as though their veins and arteries were severed; and that the cigarette is a maker of invalids, criminals and fools, not men—it ought to deter them some. The yellow finger stain is an emblem of deeper degradation and enslavement than the ball and chain."

Company, contains some good sound advice, some of which we make room for. It says: "We are beginning to realize that it is stupid to waste anything, even a human life."

The following extract from their valuable tract will interest our readers:

Alcohol and the Death-Rate

In 1880 the per capita consumption of alcoholic beverages in the United States was 10.08 gallons. In 1909 it reached 21.85 gallons, an increase of 117 per cent.

Since 1880 the death-rate in the Registration States from degenerative diseases in which alcohol is conceded to be an important causative factor, has increased 104 per cent.

That alcohol is the sole or even the chief cause of this increase can not be authoritatively stated, but that it is a powerful factor is undeniable.

It is worthy of note that although the use of wines has increased only 25 per cent, and spirits 7.9 per cent, malt liquors show an increase of 139 per cent. Evidently beer is not so harmless a beverage as some people imagine.

The strain of modern existence is beginning to tell. While gross intemperance is

be prepared to see the handwriting on the wall appear at any time, and spell "pneumonia." When it comes, prompt medical attention (pneumococci vaccine in skilled hands may be of service), good nursing, and fresh air are all that can avail.

Courage

The mental state which we term "courage" is largely a matter of habit, training and bodily condition. Few individuals are without the latent resources which, properly utilized, constitute courage.

A vast amount of functional illness is the result of mental cowardice. The occasional success of the various "mind-cures," under whatever name they may be paraded, is due to the fact that they substitute courage and hope for fear and despair. The maladies which disappear under such treatment, therefore, are largely of the mind, and are susceptible of cure by an appeal to mental resources. But a great deal of harmful mysticism is thrown around such matters.

It is true that we know nothing of the link between mind and body, but we do know that a persistent and increasing fear of disease is often followed by a profound disturbance of health. Plain, everyday courage and a disposition to make the best of things, can ward off fifty per cent of the nervous, maladies and functional derangements that afflict modern society. This does not mean a denial of the perils to health which surround us, nor does it mean a "happy-go-lucky" neglect of the laws of health.

Proper living should be a matter of habit. If you are eating, drinking, working or playing in a way which science has determined to be injurious, substitute a good habit for the bad one, then forget about it.

The specious and feeble plea that we must do something injurious in order to make life worth living is curiously narrow and stupid. The man who can not find some good reason for living in this big world, without indulgence in some petty vice which saps his vitality and impairs his usefulness and capacity for enjoyment, is indeed a sad case. Is it possible that the monotony and weariness of existence can only be broken by an unwholesome indulgence?

It is not necessary to be in a continual state of fidget and tremor regarding what we eat, drink or do,—simply locate the fairly broad pathway of healthful living, and tread within its borders. Have your body inspected occasionally by a man who knows something about human bodies. If you are in good trim, and living properly according to your constitution,—be happy, and do not worry about microbes, new diseases, or other perils which carry little menace for a "good animal." If you find that you are not in perfect trim, remember the enormous resources of the human body to overcome its enemies. Place yourself in competent hands, have faith in yourself and your doctor, do not hug your miseries, and you will have the best chance for recovery. The watchword for health is, "Courage."

Importance of Vital Statistics

Are you proud of the fact that these United States are fifty years behind Japan in the matter of collecting vital statistics? Is it pleasant to know that this country is

grouped with China and Turkey, if noted at all, in the international records of vital statistics, because we have no uniform and accurate system for the registration of births and deaths?

Such a condition is a disgrace to a wealthy, progressive republic. Much of the legislation demanded by politicians and parties, the consideration of which consumes so much of the people's money and the time of the people's representatives, is of infinitesimal importance, compared with this question of vital statistics.

Urge upon your doctor, your representative in the State Legislature and your governor, the supreme importance of bringing your State abreast of the times in such matters. Model registration laws have been drafted by the American Medical Association, the American Public Health Association, and the Bureau of the Census. These laws are now in operation in Pennsylvania, Ohio and Missouri. Such laws should be passed by every State in the Union. Without them our health authorities are crippled, and the science of disease-prevention is grievously hindered through lack of accurate knowledge of the fluctuations in mortality—especially infant mortality.

Help the babies! We need them more than we do ninety per cent of the legislation that congests our statutes.

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 topics.

QUESTION. Is sassafras tea considered good for a person?

ANSWER. It is neither good nor bad. It is simply water flavored.

Q. What should a person do who has suffered with gall-bladder trouble all his life, having had an operation and still troubled more or less?

A. The ordinary operation upon the gall-bladder is simply to remove the gall-stones that have accumulated in the gall-bladder, but it does nothing to remove the cause of the trouble. We find gall-stones in the gall-bladder, remove them, but in six months there may be another crop. That is not a very uncommon experience. It is surprising, however, how infrequent relapses are. We must remove the cause. The real cause of this gall-bladder trouble is in the colon. There is putrefaction in the colon, great numbers of bacteria produced in the colon are absorbed into the blood and are carried around to the liver and are thus separated in the liver, changed into bile, and the bile becomes infected in that way, and the gall-bladder becomes an incubating chamber, a regular hotbed for germs. When a person has typhoid fever, some of these germs get into his gall-bladder, and not infrequently typhoid fever germs are found growing in the

gall-bladder years after the person had typhoid fever. I have found typhoid fever germs in a gall-bladder fifteen years after the attack of typhoid fever. They have frequently been found inside of gall-stones; so it is important to take care of our gall-bladders by beginning at the root of the difficulty, which is the colon. Get the colon clean, get friendly germs into the intestine instead of the unfriendly germs, and in the course of a few months they will cure nearly all of these liver troubles.

Q. When the vertebrae of the spine are out of line, will it cause extreme nervousness?

A. No; one may twist his spine in all kinds of shapes without feeling nervousness. The spinal canal is much larger than the spinal cord, so there is room for the spinal cord to move about, and room for the spinal column to be bent into various shapes without pinching or harming the spinal cord at all. That is a lot of moonshine that is very profitable for making dollars, but it does not cure people very fast.

Q. What treatment would you prescribe for a case of catarrh of the head?

A. Nasal catarrh is really more than a simple local trouble. It is sometimes a very complicated thing. It means sometimes that there are diseased structures in the nose that must be removed. Sometimes it means parts in the nose have gotten in contact, and at the little points of contact germs are constantly retained and are sending out their infection, which spreads around throughout the



PHYSICIANS SCIENTISTS

and food experts are constantly questioning the wisdom of a meat diet. They agree that flesh foods, after all, are not essential and that ample nourishment can be found elsewhere.

PROTOSE VEGETABLE MEAT

Invented by Dr. Kellogg, solves the problem of a substitute for flesh; made of choice grains and nuts, rich in all the body-building elements.

Hermetically sealed tins, one pound, 30 cents.

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THE BATTLE CREEK SANITARIUM AND HOSPITAL TRAINING SCHOOL FOR NURSES

offers exceptional advantages to those who contemplate taking up the Nurse's profession. A Three-Years' Course is offered to Women, and a Two-Years' Course to Men. Over two hundred Nurses are employed in the institution.

The demand for Nurses who are trained in the Sanitarium principles and methods is constantly increasing, both in the institution and outside. A good salary awaits those who finish the course.

In addition to the usual subjects taught in hospital training schools, special attention is given to all branches of physiologic therapeutics, including hydrotherapy, radiotherapy, electrotherapy, 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.

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SANITARIUM - - - Battle Creek, Mich.

nose. A healthy nose can keep itself in a healthy state, but when the parts of the nose are in contact, the germs that accumulate there make mischief, so it is important to have a nose specialist examine the nose, cleanse the nose, and apply some sort of antiseptic, perhaps; but the one all-important thing is to build the body up, to increase the general vital resistance. That is really the only radical cure for nose trouble or any other trouble.

Q. If every time one thinks of going to the Sanitarium table he has a sensation of nausea, but on going out to a restaurant can eat anything he wants with relish, what would you advise doing?

A. I advise he should repent of his evil ways and get converted, become thoroughly persuaded of the viciousness of his conduct. The thing that a person really needs, I suppose, is to be persuaded that the things that he has been accustomed to eating are absolutely harmful and poisonous to his body; if he gets his mind on the right side, he will find very little difficulty in bringing the instincts into line. The real trouble is in the mind. If we make up our minds that certain things are unwholesome, it will not be very long before we will lose our craving for them, if we are thoroughly satisfied that they are not good for us. The person needs to be mentally converted first.

Q. Should one eat if he is not hungry, if he is constantly losing flesh?

A. The best thing to do if you have no appetite and are not hungry is to fast partially or eat no breakfast for a day or two. A great many people go along year after year not having any appetite at all, because they eat supper, and the stomach is jaded in the morning, and they have no desire for food in the morning, and yet they think they should eat. But the stomach does not get quite empty, so there is not a real appetite for dinner, and they eat from a sense of duty, they eat because it is time to eat. That is a very ridiculous habit. If such a person should drop out one meal, or drop out breakfast for a little while, he would be surprised to discover he had a real, childhood appetite for dinner; if not on the first day, just wait till the next day, fast for a meal now and then, and it will do you all sorts of good.

Q. I have had nosebleed three or four times a day for two days. Have changed from mental to physical work. What is the cause of the nosebleed?

A. Probably a little erosion of the nose. See the doctor and have a little application made to your nose, and it will be cured probably. If there is anything more than that, it will be found out. That is the most probable cause.

Q. How does the use of tobacco injure one?

A. It poisons him, paralyzes the heart, produces hardening of the arteries and cirrhosis of the liver, damages the kidneys, causes general wreck and havoc throughout the body.

COUPON

Send Us the Names

of interested friends who you know would like to have the information contained in **THE BATTLE CREEK IDEA**, and we will send them free of charge a few sample copies. Simply write their names and addresses in the blank spaces below, cut out the coupon and mail to us, and we will send the papers.

NAMES

ADDRESSES

ARRIVALS

THE Sanitarium register shows the following names for the week ending Nov. 5: Geo. Jessup and wife, Lansing; W. H. Park, O.; Miss E. J. Steward, O.; Harper Reed, Mich.; Wm. W. Dean and wife, O.; M. Shepard and wife, Mich.; Wm. Peelan, Chicago; Miss Duffner, City; Mrs. J. F. Guy, Port Huron; Harry C. Vrooman, Greenville; T. H. Blake and wife, W. Va.; Miss Karr, W. Va.; Wm. Burtles, W. Va.; A. H. Emmons, Ia.; A. G. Mow, Chicago; H. D. Everett, W. Va.; L. W. Smathmeyd, Ark.; W. J. Fenn, N. J.; Bert McMoses, New York; W. H. Whitford, Cal.; A. C. Greenback, Texas; Mrs. C. Grumboch, Texas; Mrs. Lens P. Skargler, O.; H. Halsman, F. G. Sala, L. E. Sala, F. P. Martin and wife, Chicago; D. Roehen, Mich.; E. P. Merrill, Detroit; W. C. Allen, New York City; Emil Herman, Copenhagen, Denmark; Mrs. L. M. Campbell Bixley, Vt.; J. H. Richman, Ill.; Mrs. Geo. M. Tagg, Memphis; Mrs. R. S. Lynn, Boston; Mr. and Mrs. B. M. Dillard, Miss.; J. J. Haggarty and wife, Los Angeles; Frank Higgin, Chicago; I. A. Bell, Ind.; C. H. Averill, Ind.; D. M. McCormick, Winipeg; Mrs. S. Kate Carlin, O.; Mrs. Ida H. Brodner, O.; Miss Webster, Pa.; Jane Mc-Liven, Pa.; C. E. Thonor, N. Y.; Mrs. J. R. Connon, Chautauqua, N. Y.; Mrs. D. A. Cox, Mrs. Clifford Shopbell, Ind.; Mrs. E. F. Shellaberger, Mrs. C. E. Bagley, Ill.; Mrs. J. S. Bailey, Miss A. P. Bailey, Ga.; E. L. Booth, Chicago; Mrs. Francis Simons, Mich.; F. Elbers, New York; T. H. Zandersen, Texas; A. Zunder and wife, Mich.; Mrs. Geo. C. Harvey, Mich.; S. Yatter, Chicago; Jacob Lohinsky, Grand Rapids; Geo. Lake, Mrs. Geo. Lake, Miss.; W. M. Hoffmaster, City; Miss Mary Odell, Miss Nellie Stratton, O.; Miss Mae Saunders, N. Y.; Mrs. Oscar Ferger, Jersey City; Mr. and Mrs. W. L. Rogers, Detroit; James Kenan, Chicago; Mrs. A. J. McMahan and daughter, Mrs. Ella M. Westfall, Oklahoma City; Mrs. N. Carver and daughter, Ind.; Mrs. J. S. Williams, Jr., Ernest A. Williams, Mex.; Jane Schofield, W. Va.; H. W. Baumgartner, Chicago; Wm. B. Butts, H. M. Butts and wife, Albany; Rev. A. J. Higgins and wife, Albany; R. G. Brown, Minneapolis; F. L. Everett, Sault Ste. Marie; H. F. Leaburgh, Tenn.; H. A. Lappe, Pittsburg; Geo. B. Keller, New York City; R. E. Willis and wife, Ind.; F. C. Koepsell, Milwaukee; W. E. Blackledge, Mrs. Blackledge, Ind.; H. L. Chapman, Ill.; Mrs. E. P. Pulver, Mich.; Mrs. Alonzo L. Parrish, W. Va.; Geo. M. Tagg, Memphis; E. J. C. Beoler, Ia.; M. M. Davis, New York; Robt. Young, Columbus; Floyd Shafer, Detroit; W. L. Lockwood, H. B. Lockwood, N. Y.; C. Milaneon, Mich.; Mrs. J. E. Gorman, Chicago; J. W. Martin, Texas; W. K. Van Derven, Omaha; T. O. Osbourn, Oklahoma City; J. S. Francis, Kas.; J. C. Keakey, Little Rock; H. L. Adams, St. Louis; J. C. Tomlinson, Des Moines; R. H. Whitman, Kansas City; Nettie Andrews, Chicago; Chas. A. Thayer and wife, Chicago; Ralph C. McCoy, Kansas; W. D. Bishop, Grand Rapids; A. Ross, City; Mrs. W. F. Willsinger, Wash.; Mrs. M. A. Warren, Neb.; R. P. Laird, Mo.

News and Personals

Mr. T. H. Zanderson, a real estate man of San Antonio, Texas, and Mr. J. L. Fuelling, a planter of Vera Cruz, are among the last week's arrivals.

Among recent missionaries registered at the Sanitarium are Mrs. Jane A. M. Liner, of Fajardo, Porto Rico; and Mrs. Addie L. Graham, of Sierra Leone, West Africa.

On Sabbath morning the sermon in the chapel was preached by Alonzo T. Jones, who was formerly connected with the religious work of the Sanitarium. He has just returned from an extended lecturing trip.

Mr. H. A. Akeley, a prominent business man of large lumber interests in Minneapolis, is a frequent visitor at the Sanitarium. He recently said, "I can not find words too strong to express my admiration of the Sanitarium and its methods."

Dr. A. J. Read gave an illustrated lecture in the parlor on Thursday evening on the subject of "The Cigarette up to Date." This lecture was very interesting and excited so much general interest that it is printed in this issue by special request.

One noticeable feature of our work at the Sanitarium is the fact that so many of the patients are either sent or brought by their physicians. This is peculiarly gratifying as evidence of the appreciation of Sanitarium methods of treatment by scientific men.

The Sanitarium heating system has been extended to the Annex by underground conduit from the College building. This brings all the principal buildings into connection with the central heating plant, which is proving itself entirely capable of furnishing all the heat required.

In the list of former patrons who have returned for a course of treatment are: Mr. Fritz Elbers, a merchant of Brooklyn; Mr. W. H. Park, a real estate man of Youngstown, O.; Mr. E. S. Davoll, a business man of Metamora, O.; Mr. B. W. Moses, a prominent business man of New York City.

Dr. H. W. Miller, a graduate of the medical college formerly connected with the Sanitarium, was a caller at the Sanitarium this week. He has spent several years in medical missionary work in China, and was compelled to come home to regain his health. We are pleased to note that he is succeeding in this. He expects soon to return to his chosen field of work.

The Hon. E. J. C. Bealer, of Cedar Rapids, Iowa, is visiting his daughter, Mrs. J. M. Grimm, who has undergone a thorough course of treatment at the Sanitarium and is making a good recovery. Mrs. Grimm's husband, who is a member of the law firm of Grimm & Trewin, of Cedar Rapids, is a direct descendant of the much-loved author of "Grimm's Fairy Tales."

Dr. Paul Roth, of the Sanitarium medical staff, having spent several weeks at the Carnegie Institute in Boston in research along the lines of the chemistry of digestion, has returned to his work in the Sanitarium laboratories. He reports having enjoyed a very successful visit, being received with the utmost kindness and shown every possible courtesy by the professors in charge.

Rev. Edwin W. Bishop, D. D., pastor of the Park Congregational Church of Grand Rapids, is spending a few days at the Sanitarium, taking some needed rest. Doctor Bishop was with us for a course of treatment last spring, but is now taking a little rest after a very strenuous season's work. He has accepted an invitation to occupy the Sanitarium pulpit next Sabbath forenoon.

Miss Alice Geisel, who is in charge of the bookstand, has returned from her home in Tekonsha, Mich., whither she was called by the serious illness of her mother. Miss Geisel is now busy getting things ready for the holiday season; already there are large numbers of Thanksgiving and Christmas cards, together with booklets, very pretty calendars, and artistically framed mottoes. These are all on exhibition at the bookstand, and the new Christmas books are expected shortly.

Chaplain McCoy, of the Sanitarium, conducted the service on Sunday evening in the main parlor. The topic was, "Faith in God," and the parlor was well filled. Elder McCoy has just returned from a month's vacation and visiting tour through Missouri, Kansas, and Iowa. He was accompanied by his wife,



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BALANCE**

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Do You Know How

to plan a scientific diet for yourself—a diet that will keep your body in "fighting trim?" If not, let us assist you.

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and they had a very pleasant time visiting friends and relatives, among whom they had several reunions arranged. Some very pleasant days were spent in the old town in which they were married and which was their home for several years.

The concert season was opened on the evening of the 7th inst. in the Sanitarium gymnasium with a delightful recital by Miss Margaret Mulford, formerly of this city, now of Chicago, who has a contralto voice of very sweet quality; and Madame Sturkow-Ryder of the same city, pianiste. The large room was quite well filled, for both ladies are well and favorably known here, and they sustained their reputation as artists of high merit. Mr. Drever, the Sanitarium musical director, accompanied Miss Mulford on the piano in a very acceptable way.

On Friday evening after the song service in the lobby, which is always well attended, the Christian Endeavor Society met in the chapel of the Sanitarium. There was a good attendance and the meeting was conducted by Mr. C. S. Quail, superintendent of the men nurses' department. Being consecration night, the roll-call was read by Miss Ruby Parker, the members responding with a verse of scripture or a few earnest remarks. The singing was led by Mr. Wencke, who with his "lookout committee" is doing good work in looking up absent and new members.

The Sanitarium Orchestra gave a fine concert in the lobby on Saturday evening under the leadership of Mr. W. Drever. There was a large gathering of people and the applause was frequent and hearty. The high character of the music is seen from the following program:

Overture—Tantalusqualen *Suppe*
Extase d'Amour *Rose*
Waltzes—Women's Love *Fahrbach*
Intermezzo—Cavalleria Rusticana... *Mascagni*
Selection—Faust *Gounod*
It's a long lane that has no turning... *Klein*
Waltzes—Wedding Dance *Lincke*
March—Spirit of Loyalty *Osborn*

There has recently been quite a large number of guests at the Sanitarium who hail from Mexico. Among them are Señores Valentine Onate and Morocos Russek, who fought in the late war of the Mexican Republic. Señor Valentine Onate held a responsible government position, and both officers were prominent on the battle field. Mrs. J. B. Williams, whose husband has large mining interests in Sonora, Mexico, is also taking a course of treatment here with her son, Mr. Ernest A. Williams. Also we have with us Mr. F. G. Sada, a prominent business man of Monterey, Mexico, who with his son, Mr. Louis G. Sada, are guests of the Sanitarium.

The Question Box in the parlor on Monday evening was conducted by Dr. A. J. Read. This affords a good opportunity for satisfying many of the vexing and perplexing queries that will arise in the minds of the patients, and affords an excellent means for giving much valuable information in an easy conversational style. Much amusement was excited by the little red ant subject which

came in for attention, and questions were asked concerning pneumonia, nervous exhaustion, goitre, ordinary cold, exercise, and a variety of interesting topics presented by the patients themselves, for whose difficulties the question box acts as a sort of clearing house.

Our arrivals for this week include Mr. J. H. Richman, a manufacturer of Chester, Ill.; Mr. J. J. Haggarty, a business man of Los Angeles; Mr. Frank Hagen, who is associated with his father, a business man of Chicago; Mr. E. Herman, a traveling man of Copenhagen; Mr. A. C. Crumbach, who is accompanied by his mother, is from Houston, Tex.; Rev. H. C. Vrooman, of Greenville, Me.; Mr. L. H. Southmayd, a well-known business man of Van Buren, Ark.; Mr. W. W. Dean, a manufacturer of Elyria, O., accompanied by Mrs. Dean; Mr. James, a retired business man of Chicago; and Mr. R. P. Lavin, a real estate man of Poplar Bluff, Mo.

Miss Lenna Cooper, the dietitian of the Sanitarium and superintendent of the domestic science department, has returned from Detroit, Mich., where she has been attending the meeting of the Michigan Home Economics Association, of which organization she is state secretary. The aim of the association is chiefly the betterment of the home. As many of the members of this association are teachers, it was most fitting that their session should be held while the State Teachers' Association was also convened in Detroit, and which was attended by 8,000 teachers. The next committee meeting of the Michigan Home Economics Association will be held in the Sanitarium, when plans will be formulated for their annual gathering.

Though the Sanitarium family is composed of guests and patients from all parts of the country, yet there is such a spirit of cheeriness and helpfulness in the institution that the "home" feeling is very quickly developed and the social hour is a great opportunity for manifesting that spirit of good will and comradeship. On Wednesday afternoon three young ladies with Mr. Irving Steinel furnished a most pleasant time for the guests in the main parlor. Miss Zella Rayburn, a reader, contributed some excellent selections; Miss Ruth Otis, who has a genius for whistling, accompanied herself on the piano, while she trilled forth her beautiful melodies with bird-like sweetness; Miss Lyndall Hill and Mr. Steinel rendered some good solos which elicited much applause.

The Sabbath afternoon service was held in the main parlor, when Rev. John X. Miller, of the Congregational mission in Madura, South India, told of the most excellent educational work which is being carried on at Pasumalai, just a few miles from the city of Madura. Mr. Miller, who has a strong, energetic physique, is principal of a school which instructs no less than 658 boys yearly, in all the grades from primary to the normal school. In addition to the usual methods of education he told of the manual training school, where classes are taught carpentry and blacksmith work, and spoke of the farm

of ten acres, where the boys take part in all kinds of agricultural work. The school has also a good record for athletics. The government inspector of schools in India expressed himself as highly gratified with the work done in this school.

Among a long list of arrivals are: Mrs. J. E. Gorman, whose husband is first vice-president of the Rock Island Railroad; Mr. W. E. Blacklidge, a well-known attorney of Kokomo, Ind., accompanied by his wife; Mrs. H. M. Westfall, whose son is a practicing physician in Oklahoma City; Mrs. A. J. McMahan, whose husband is a prominent insurance man of Oklahoma City; Mr. O. Ferger, who was sent by Dr. A. C. Muttart, of New York City; and Mrs. George Lake, of Como, Wis., who bore letters from Doctors Ward and Alexander; also Mrs. D. A. Cox, whose husband is a practicing physician in Evansville, Ind., and is accompanied by her friend Mrs. Clifford Shapbell, whose husband is a well-known architect of the same city; Mrs. J. R. Connor, of Chautauqua, N. Y., and Miss Rannie Webster, who both came here on the recommendation of Dr. J. W. Seever, of New Haven; Mrs. G. M. Tagg, of Memphis, Tenn.; and Mrs. Z. M. Bell, of Dansville, Ind., both ladies being here with letters from their home physicians; Mrs. D. McCormick, of Winnipeg, Manitoba; and Mrs. Lucy Hardy, of London, England.

Hallowe'en was celebrated in the Sanitarium, and everyone seemed to have a good time without offending the proprieties or overtaxing the sick folk. In the gymnasium a little festive air was given by the pumpkin and corn-shock decorations and bunting. The presence of the orchestra under the direction of Mr. Drever contributed greatly to the enjoyment of the march and various games which were played under the guidance of Professor Schatzel. Crowds of the Sanitarium family were gathered in the balcony and around the sides of the gymnasium, and it would be hard to say which had the more fun, the onlookers or the happy-faced, laughing people who were keeping step to the lively music. Many of those in the march had donned special costumes for the occasion, which gave a decidedly festive air to the exercises. Mr. and Mrs. Province were dressed as George and Martha Washington, and so well represented these characters that they called forth continuous delighted exclamations. Others looked as if some of the sweet, grey-haired ladies of the olden times had stepped out of their gilded picture frames. The clown, the jester, Lord Fauntleroy, the dunce becaped laddie, witches and fairies, and "ancient dames of high degree" were all present and stepped right merrily through the intricate figures of the march. During the evening Zella Rayburn gave some fine readings, and Miss Ruth Otis, who has a genius for whistling, contributed two selections in which she was accompanied by Mr. Drever. The Senior nurses had a Hallowe'en party in the Sanitarium villa on Lake Gogauac, and the Junior nurses had a party in West Hall, while the Physical Culture students had a merry time at the residence of Professor and Mrs. Hastings.

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Sleep and Insomnia

Causes, Symptoms and Cure of Sleeplessness Indicated—Abstract of a Lecture by Dr. W. H. Riley in the Sanitarium Parlor

(1) The Causes of Sleep

THE causes of sleep are not positively known. The probable causes are as follows:

Heating the Sanitarium

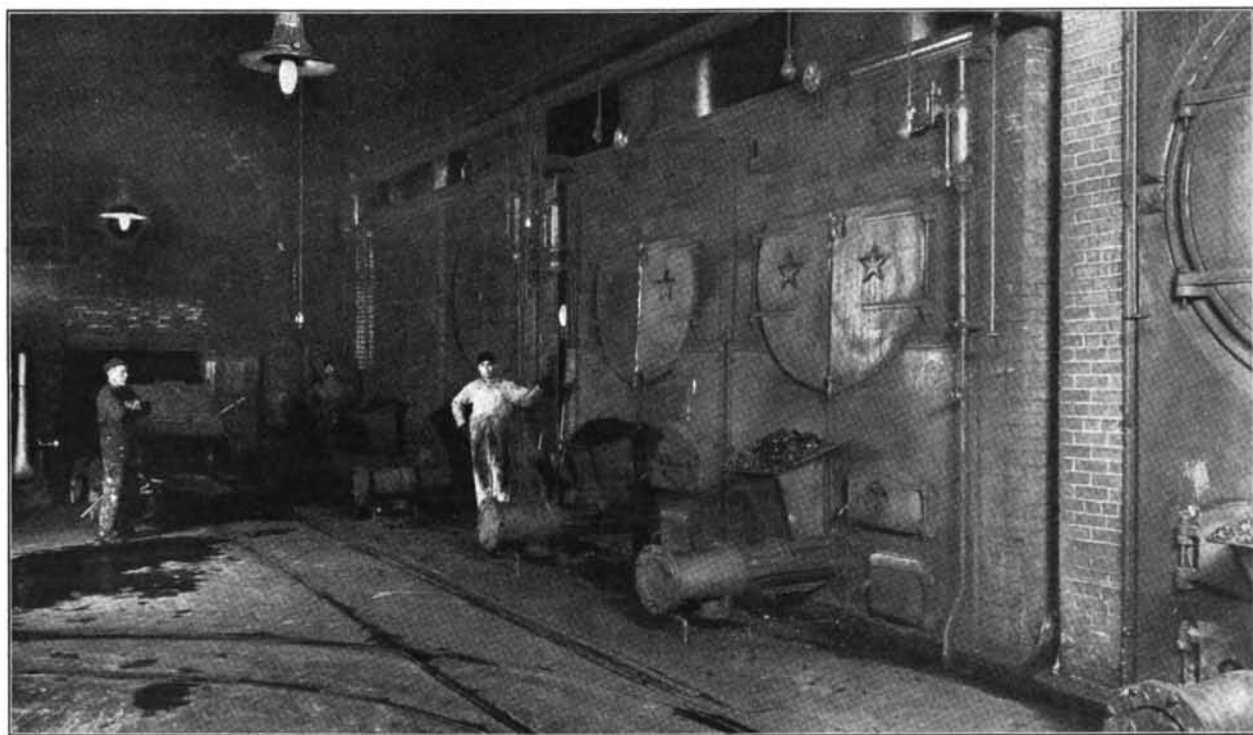
How the Large Plant is Warmed and Ventilated in Winter—An Efficient and Economical System

Now the cold weather is approaching, and we have already felt some of the premonitions of winter, the question of proper heat-

Neurasthenia Not a Disease

The Name Given to a Large Group of Symptoms—Nerves Are Simply the Medium of Expressing the Symptoms of Toxic Troubles—Taken from a Lecture by Dr. J. H. Kellogg

IN the first place, the neurasthenic must disabuse his mind of the idea that his trouble



THE BOILER ROOM

(a) A recession of blood from the brain to other parts of the body. The blood supply of the body is under control of the vasomotor nervous system. The chief center of the vasomotor nervous system is in the medulla oblongata at the base of the brain. This center holds a grip, as it were, upon all the blood-vessels of the body. When this center is active, the grip is tightened on the

(Continued on page three)

ing comes forcibly to our attention. A visit to the Battle Creek Sanitarium boiler house and a trip over the extensive premises under the direction of the competent engineer-in-chief, Mr. B. E. Clough, will be an occasion of interest to any who are interested in the problem of healthful and economic heating; and who is not?

We will begin our inspection at head-

(Continued on page two)

is a brain disease or a nerve disease; the real trouble is not with the brain or with the nerves. The neurasthenic is generally tormented with the fear that his nerves are going to break down, or that his brain is going to give out. But the disease is located elsewhere, and the system is using the nerves as a medium of complaints and symptoms.

Neurasthenia is a manufactured disease:
Original from

UNIVERSITY OF MICHIGAN

it is not a real disease. Neurasthenia was invented by Dr. George M. Beard, of New York City; it is absolutely an artificial disease. Doctor Beard was a neurologist, a nerve specialist, more than thirty-five years ago, when I was a recent graduate in medicine, and I attached myself to Doctor Beard, with his consent, for the purpose of becoming acquainted with the methods of using electricity, as he was the most scientific man in that particular branch of medicine in this part of the world at that time. And I assisted Doctor Beard at the great dispensaries in New York. I helped him to examine his patients; he asked the questions and I took the answers, and it was my duty to note and tabulate the symptoms.

Doctor Beard pursued this work for a number of years, and finally grouped together a lot of the symptoms that were peculiar and for which he could not find a real cause, and

Called Them Neurasthenia.

Knowing the history of this so-called disease from the beginning, I have always contended that it was not a disease, but simply a complex group of symptoms. Headache is not a disease; it is a symptom of disease. Hunger is not a disease, a pain is not a disease; and neurasthenia is simply what is sometimes called a "symptom-malady," and is not a disease at all; so, not being a disease, it can not be a disease of the nerves, and it can not be a disease of the brain.

But the neurasthenic says, "What is the matter with my head, then, if there is no trouble with my brain? Why can't I think better? Why am I confused? Why am I so stupid, so irritable? Why can not I sleep? Why am I so drowsy that I can not stay awake when I want to? What is the matter with me, then, if there is no trouble with my brain? What are these numb sensations in my arms, and these creeping, crawling, stinging and chilling sensations, if there is nothing the matter with my nerves?"

Let Me Give an Illustration.

Suppose there comes a violent ringing of the telephone; it rings, and rings; you at first pay no attention, but after a while you answer the call and somebody shouts, "Your house is afire; the roof is ablaze." You would not say, "Dear me, what is the matter with this telephone? That telephone is out of order; we will have to take it out for disturbing us in this manner." Neurasthenia is simply a state in which the nerves are reporting the conditions within; something is wrong in the body, and the nerves are simply telling you your house is afire. It is not the nerves or the brain that are at fault at all; the whole difficulty is further back. We ask a neurasthenic to put out his tongue, and we quickly discover what the source of trouble is. We see a brown coat on the tongue, and that means that the body is filled with toxins. Germs are growing in the colon, making toxins, and these toxins are poisoning the body to such a degree that it can not resist; the saliva is polluted and it can not prevent the growth of germs, so they accumulate in the mouth, grow on the tongue and every other cavity of the body just as they are growing in the mouth.

A man who has a coated tongue and a bad

taste in his mouth has something much worse than he is likely to apprehend; it is not simply a slight inconvenience; it is a

Sample of the State of His Whole Body.

I said the other day to a man who had a coated tongue, "My friend, your tongue looks as though it needed the city scavenger after it. It is an awful looking tongue, perfectly terrible." He was very apathetic about his condition, and I had to wake him up to get him to do things he ought to do. He said, "Why, Doctor, that's nothing; my tongue has been worse than that for twenty years; it is pretty good now." He thought that if his tongue had been coated for twenty years it could not be very serious. But if he has had it twenty years, it is a great deal worse than as though he had it only a week. The poisons that cause this bad smell in the breath and coat the tongue have other qualities besides the bad odor. They are intensely poisonous and saturate the fluids of the body, and what is in the breath is simply the volatile part; the real thing is in the body. And the whole body is damaged with those awful poisons, the brain is muddled; the individual is intoxicated; he is saturated with poisons and the nervous system becomes distracted.

Food Poisoning

is the common cause of neurasthenia, so the first thing for a neurasthenic to do is to dismiss the idea that the trouble originates with the nerves, and make up his mind the real trouble is elsewhere. In ninety-nine cases out of one hundred the trouble is in the colon, and upon investigation we find there is colitis, infection of the colon; and if we make a study of the germs found in that part of the intestine, we find that they are highly toxic germs.

One germ that is very common in the bowel is known as the bacillus of Welch, because it was discovered by the eminent Doctor Welch, of Johns Hopkins University. It is a germ that produces enormous quantities of gas. When gas is formed in the bowels, it is produced by this germ. And an examination of the bowel discharges when there is a great deal of ill-smelling gas shows that these germs are present in great numbers, and a culture of them in the laboratory gives off a most offensive odor.

This Germ Feeds on Meat.

When you go to the butcher's and buy a big, juicy beefsteak, you are carrying home millions and millions of these Welch germs. That is where they come from.

The doctor found if he injected a few drops of beef tea containing these germs into a rabbit's ear, in two minutes that rabbit was dead. Suppose those germs have been growing down in a man's colon, or in the small intestine, instead of in that test-tube; it is no wonder that he has a headache.

The wonder is we do not die. It is only because we have a line of resistance set up, because the mucous membrane of the intestine filters these poisons out, that a well man can eat beefsteak with apparent impunity. The poisons are generated in his stomach and in his intestines, but they do not harm him because they do not get into the blood. You know that when a person has been bitten by

a rattlesnake, if the poison is left under the skin it will kill him in a little while; but put the wound the snake has made into the mouth, suck the poison out into the mouth, and it does no harm, because the mucous membrane of the mouth and intestine will not allow the poisons to pass into the blood.

The Skin and the Mucous Membrane Are Our Protectors

Put the snake's venom on a healthy skin and it will not do the least bit of harm; but if there is the least little scratch in the skin and the poisons get in through that little scratch, they may destroy the life. So long as the mucous membrane is intact, it protects the body against these poisons just as the skin does; but if the mucous membrane has become diseased, if it has raw surfaces, these poisons easily get into the blood. Persons suffering from colitis so that there are being discharged from the body every day quantities of mucus, have large raw surfaces in the intestine, and through these surfaces poisons are taken in great quantities. That is the reason why a person suffering from colitis has intestinal autointoxication so markedly, why he has such dreadful nervous symptoms,—he is poisoned by poisons that get into the body through these injured surfaces.

HEATING THE SANITARIUM

(Continued from page one)

quarters, which is the bank of boilers situated about eighty yards east of the main building, over the brow of the hill that leads down to Spring Brook, which runs across the rear of the Sanitarium premises. Here in a brick boiler house with ample coal sheds attached, we find

Six Mammoth Boilers

in a bank, having a total capacity of 1,000 horse-power. These boilers are not all required at any one time, the economy of heat being so perfect as not to require the full force of the outfit in the coldest weather ever experienced in Michigan.

The furnaces are fed by automatic stokers, of the under-feed variety. The coal, which is of the slack, or very fine, variety, is placed in a hopper outside the furnace door. By an automatic mechanism which admits steam to a cylinder at stated intervals, regulated by the firemen, a charge of coal is rammed into the bottom of the furnace. This crowds the fire upward and the smoke and gases are obliged to pass through the burning mass in escaping. Thus they are consumed instead of passing out through the chimney as is the case when the coal is shoveled on to the fire.

The result is that

The Smoke is Consumed

instead of being spread over the surrounding community. There is no residue of ashes, and once in twelve hours the clinkers are taken from the furnaces. The draft is all forced, and so is under the regulation of the firemen, though a steam valve controls the blower, and as the steam pressure declines

the fans are quickened so the pressure is automatically kept at an even stage, the variation for twenty-four hours never being over two or three pounds from the mean pressure.

The amount of coal consumed varies of course with the temperature of the weather. In the average winter weather with the thermometer at say thirty above, one and a half tons per hour are consumed. The steam thus generated is conveyed to and used to warm all the buildings used by the Sanitarium during the winter season. These buildings include the main building of seven stories; East and West halls, four stories; the Annex, five stories; the College building, South hall, the laundry and machine shop, all three stories; five or six large cottages,—probably a

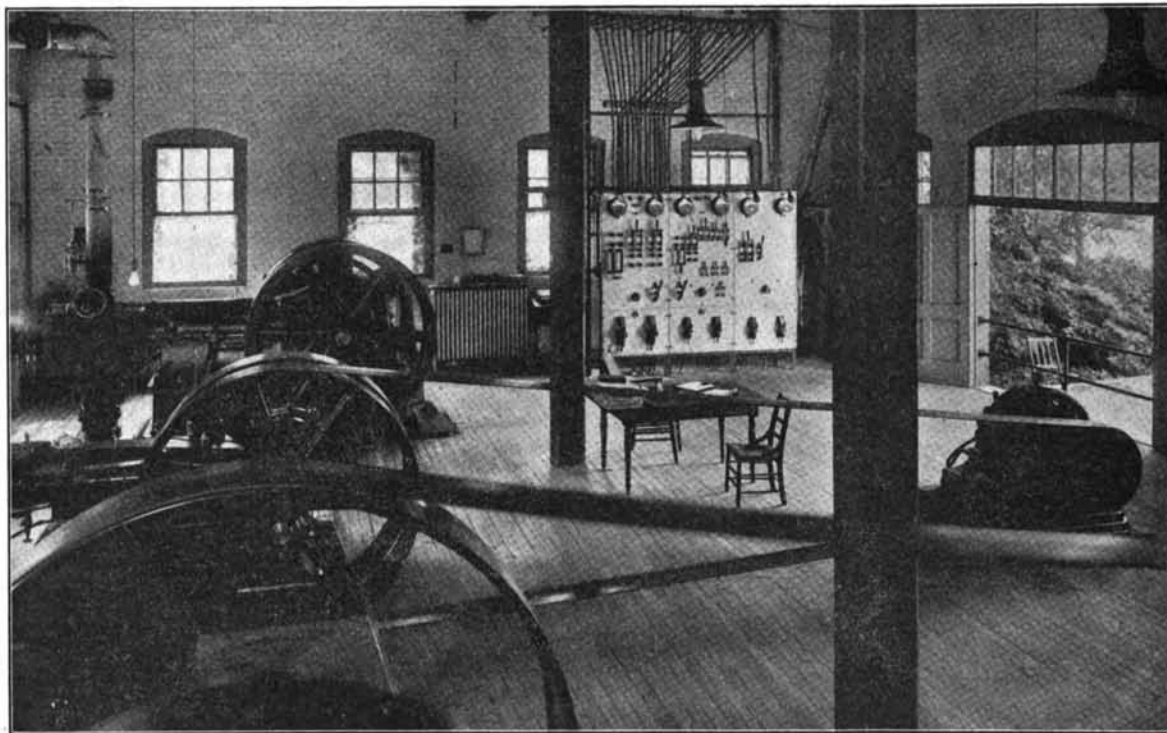
where it is heated in exhaust steam retorts before being returned to the boilers. A careful account is taken of the amount of coal and water being consumed, together with the amount of steam produced, and it is found that in the present system one thousand pounds of water is evaporated or converted into steam at a pressure of one hundred pounds for twenty cents.

The hundreds of rooms are heated by efficient radiators, which preserve at all times an even temperature. A large volume of fresh air from the outside is being constantly drawn into the main buildings and introduced into heating chambers, where it is warmed and then distributed throughout the halls and rooms. Thus the air is always pure and wholesome, while there are no cold

SLEEP AND INSOMNIA

(Continued from page one)

arteries and arterioles, the blood-vessels are made smaller by the contraction of their muscular coats, and the amount of blood in the different parts of the body is diminished. When this center becomes fatigued and exhausted, it loosens its grip upon the blood-vessels in the extremities and other parts of the body, the blood-vessels dilate, and by dilating the blood-vessels become larger and contain more blood. More blood in the extremities means less blood in the brain. This vasomotor nerve center at the base of the brain becomes exhausted as one passes through the day, and at night the blood-



THE DYNAMO ROOM

Floor Space of Not Less than Thirty Acres.

Besides all this the steam is used to drive the electric generators of four hundred and fifty horse-power capacity, the engine in the laundry and machine shop, furnishes hot water and steam for treatment rooms, steam for numerous pumps and the elevators, and to do much of the cooking in the large kitchens. The exhaust steam from all the engines is utilized in the heating system, and by means of a reducing valve live steam is supplied to make up the deficiency.

The large steam-pipes and the returning water pipes are conveyed to the main buildings in tunnels of convenient size for passing, there being no less than 1,400 feet of this tunneling, and a thousand feet additional of conduit constructed of large tiles filled with asbestos through which the pipes pass. The pipes are thoroughly insulated with asbestos wrapping, so as to preserve the steam with the least possible waste. All condensed steam is returned to the boiler house,

drafts to endanger the health. The floors are swept by gentle currents of air which constantly remove all foul air, which is conveyed to air shafts and discharged above the roofs.

So efficient is the system of heating that fully seventy per cent of the value of the fuel is actually converted into steam, with only a very small loss in the circulation through the immense system. The result is the preservation of a beautiful even temperature of balmy softness and perfect purity, producing for those who are in delicate health a climate more favorable than that of the semi-tropics. Through the extraordinary stress of weather that the whole country has experienced during the past few days, the Sanitarium family has been most comfortably and pleasantly housed, and have learned of the storms and sufferings in other parts, while enjoying the comforts of a perfectly tempered climate and a pure atmosphere.

vessels are relaxed, the blood recedes from the brain into the extremities, and this moving of the blood out of the brain is one of the principal causes of sleep.

(b) A lessening of the normal irritability of the nervous system. The two principal physiological properties of nerve tissue are irritability and conductivity. By irritability we mean the capability of responding to stimulation. This normal irritability of the nerves is greatly lessened by activity and so diminishes as one performs his duties through the day, and at night our nerves do not respond so readily to stimulation as they do in the morning or at earlier periods in the day. Since they are not so readily stimulated, the activities of the body over which the nervous system has control are lessened at night and one drops to sleep more easily because the body does not respond so readily to the effects of stimulation of the nerves.

(c) A reduction of the normal stimuli which act upon the nervous system. Our

bodies are being stimulated all the time by physical forces outside of the body which are constantly acting on the nervous system. These physical forces are light, sound, electrical changes in the atmosphere, and various mechanical stimulations on the nerve endings of the skin; all of these various stimulations tend to keep the machinery of the body in motion and keep one awake. When this stimulation is reduced, the various functions of the body are performed at a lower rate and we more readily drop off to sleep than when these forces are acting on the nerves.

(d) The accumulation in the body of certain chemical substances which normally lessen the irritability of the nervous system. There are formed constantly in the body certain waste chemical substances, the result of the metabolism of the various tissues and organs of the body. It has been found by experimentation upon dogs that these chemical products of metabolism lessen the normal irritability of the nervous system and tend to produce sleep. These substances are constantly being formed in the body, especially in those who are active physically or mentally, and the action of these substances on the nervous system is thought to have much to do with producing sleep.

(e) A theory with reference to the production of sleep is the retraction of the protoplasmic nerve fibers so that the pathway for ingoing nerve impulses is broken at different parts of the nervous system, perhaps more especially in the cortex of the cerebrum, so that incoming nerve impulses do not produce the stimulation of the body which they would under other conditions. This is held as the theory for the production of sleep.

(2) Changes in the Functions of the Body During Sleep

The most pronounced changes are as follows:

(a) The partial or complete loss of consciousness. (b) Absence of response to sensory stimuli of moderate strength. The individual does not hear, see, taste, smell nor feel while he is asleep. (c) The partial or complete cessation of voluntary motion. (d) Diminution or absence of all the deep and superficial reflexes of the body, which are usually elicited by external stimulation. (e) Certain changes in the circulation. The heart beats slower and with less force when one is asleep. Blood-pressure is reduced when one is sleeping. There is more blood in the legs and in the extremities of the body when one is asleep, and less blood in the brain. This can be demonstrated by the plethysmograph and other instruments of precision. (f) Changes in the respiratory functions. The respirations are more thoracic when we are sleeping than abdominal.

When one is asleep he stores up more oxygen in the tissues than the body uses while sleeping; when one is awake and active more oxygen is used up during the active period than the body takes in during this period. This extra amount of oxygen which is used during the active period is drawn from the extra supply which is taken while one is sleeping and inactive. All, or nearly all, the secretions of the body are diminished during sleep. It will be seen from the above that all the functions of the body are lessened and the whole machinery of the body runs at a lower rate of speed and some

functions are entirely abolished while one is sleeping.

(3) The Causes of Insomnia

The causes of insomnia are: (a) Heredity; (b) Abnormal mental states, such as worry, anxiety, etc.; (c) Bad habits of sleeping, retiring at irregular hours, sleeping in ill-ventilated rooms, sleeping in the presence of light and noises; (d) Various forms of indigestion and constipation; (e) Poisons that are voluntarily taken into the body, such as alcoholic liquors, tobacco, tea coffee, and drugs. Alcoholic liquors are sometimes used to produce sleep. They will do this for a time, the same as ether, chloroform or other anesthetics. After a time they lose their effect and they leave the patient in a state of chronic insomnia. Various hypnotic drugs that are used to produce sleep leave very much the same effects as alcohol. They may produce sleep for a time, but after a while they leave the patient in a state of chronic insomnia, and the most troublesome cases of insomnia which the physician has to deal with, are those that have been addicted to the use of hypnotic drugs for a long time.

(f) Autointoxication

or the accumulation in the body of poisons that are formed within the body. These may be divided into two classes: first, those that are formed in the lower intestine by the action of putrefactive bacteria or germs; and second, those that are formed in the various tissues or organs of the body as the result of normal or abnormal metabolism of the tissues. The toxins that are produced in the intestines by the action of germs are chemical substances that are absorbed into the blood and are carried to the brain or other parts of the body and produce insomnia. The toxins formed in the tissues are also chemical substances which act upon the brain and other organs of the body and may produce insomnia. These latter poisons accumulate in the body when the eliminative organs, such as the kidneys, skin, or lungs do not eliminate the waste poisons from the body as they should. (g) Closely associated with the last mentioned cause are certain diathesis such as the gouty, rheumatic diathesis, when uric acid and other chemical substances are retained in the body and not eliminated as they should be. (h) Certain functional disorders of the nervous system known as neurasthenia and allied conditions where the nervous system is abnormally irritable. Insomnia is a very troublesome and frequent symptom of nervous exhaustion. (i) Organic diseases of the heart and blood-vessels. In arteriosclerosis or hardening of the arteries, especially in people advanced in years, insomnia is often a troublesome symptom. (j) In organic diseases of the brain and various forms of insanity. (k) In acute, infectious diseases, such as typhoid fever, la grippe, malaria, etc. (l) In all painful diseases. (m) Diseases of the lungs associated with irritation of the bronchial tubes and coughing are often attended with insomnia.

The above represent the principal causes of insomnia.

(4) Symptoms of Insomnia

The principal symptoms of insomnia are as

follows: A lessening of physical and mental strength and vigor. Lack of interest and courage; various disturbances of digestion, constipation; a lessening of the normal circulation of the blood; simple anemia; tired and exhausted expression of the face; loss of weight; mental depression and irritability.

(5) Treatment of Insomnia

It is very important for the physician to recognize at the outset that insomnia is a symptom and not a disease,—a symptom, however, which is sometimes so troublesome and so prevalent as almost to amount to a disease. In treating insomnia it is very important to seek for the cause and remove it if possible. Having done this, the conditions for sleep should be made as favorable as possible. The patient should take sufficient outdoor exercise; should have a sufficient amount of non-stimulating and nourishing food; should avoid stimulating food and drinks, and irritants of all kinds. Tea, coffee, tobacco and alcoholic liquors should be avoided, also highly seasoned foods. Diseases in any part of the body should receive careful attention, particularly disorders of digestion and constipation. The patient should drink sufficient water to wash the poisons out of the body and should take sufficient outdoor exercise to burn up and eliminate those which are not washed out by the water.

The sleeping-room should be in a quiet place away from light, the upper rooms of the house being preferable to the lower, as the air here is freer from dust and dirt than in the lower parts of the house. The room should be well ventilated. For a healthy person the temperature should not be above 40° in the cooler months of the year, and for those in poor health, not above 60°. In the warmer seasons of the year the temperature of the sleeping-room of course can not be made lower than the temperature of the outside atmosphere. The best place to sleep is out of doors, and this should be done in the warmer seasons of the year whenever possible.

Having made the conditions as favorable as possible for sleep, there are a number of

Simple Remedies which Induce Sleep.

The most important of these are a warm or hot foot-bath taken before retiring. The temperature of the foot-bath may be as hot as can be readily borne with comfort and should be continued for twenty minutes to half an hour. By using a deeper vessel a hot leg-bath may be taken in much the same way, the water extending up to near the knees. A hot blanket pack to the hips and legs is also a valuable remedy for producing sleep. A neutral full bath at 95 to 98° F. taken for twenty minutes to half an hour is also very useful. Sometimes a warm bath at a temperature of 98 to 100° for ten or fifteen minutes works better than the neutral bath.

All of these warm treatments should be taken at bedtime before retiring, and the patient should be put to bed immediately after the bath. A cold wet-sheet pack is also a useful remedy. The alternate application of hot and cold to the spine taken with a hot foot-bath is also a valuable means to pro-

duce sleep. In all of the above warm treatments the patient's head should be wrapped in a cold towel. If there is anything which is troubling the patient's mind, producing worry or anxiety, or any unhappy frame of mind, all of these abnormal mental states should be as far as possible removed. The use of hypnotic drugs should be avoided as far as possible. It is generally recognized by intelligent physicians that the long-continued use of hypnotic drugs is a bad practice, and any drug which is capable of making such a profound impression upon the body as to produce sleep is bound to do harm in some way. There are few cases of insomnia which can not be relieved by using the above-mentioned remedies.

KEEPING THE WOLF FROM THE DOOR

THE following account of the work being done at the Sanitarium food dispensary is taken from the *Morning Enquirer* of this city:

"It is known all over the world what is done in the big Sanitarium on the hill, but few even in Battle Creek know what is being done in a cottage at the foot of the hill on Barbour street. For four years a food dispensary has been in operation there which has kept the wolf from many a door. Recently during divorce proceedings in Marshall the wife testified that had it not been for the daily basket from the dispensary her flock of little ones would have gone to bed hungry. And there are women by the score who could say the same—penniless widows, and wives left destitute by runaway husbands, all struggling to do what lies within their power to keep the family together, yet whose earnings are too meagre to pay rent and buy fuel, clothes and food.

"Everything appearing on the Sanitarium dinner menu comes to this dispensary, in lots small and lots large, just as the demand and supply vary. An *Enquirer* visitor observed on the long distributing table grapes, pears, cream of celery soup, roast protose, escaloped potatoes, corn, spinach, rice pudding, bread of all kinds. These are brought in a little wagon around the hour of four to the cottage, where some of the patrons are always found patiently, eagerly waiting for the door to be unlocked. Great care is taken to keep the food clean, glass jars and earthen receptacles being employed for the purpose, and big baskets and pans, too. Aside from the regular food, cereal coffee and other family supplies are frequently given out.

"An unusual sight is it, this food room during the dispensing process. Around the four sides are ranged the applicants; hoary-headed men and women, many of them living all alone in a single room; scantily clothed women with babies in arms and other little ones clinging to their skirts; boys and girls who have been made prematurely old through reverses of family fortunes.

"Up to October 128,254 baskets had been given to patrons and 406 sent to homes of needy ones. Lunches have been handed to 705 transients also. The average number fed daily, the average number of families being 20 to 25. Over 1,500 barrels of zwieback and crackers have been sent to orphans', old la-

dies' and workingmen's homes in New York and Chicago. The Sanitarium food factory has contributed granose biscuits, rice biscuits and cereal coffee. Over sixty barrels of crackers alone came from the Sanitarium.

"In the past two years clothing and fuel have been added to the list of contributions. Over two hundred pieces of furniture, too, were disposed of to those in dire need of it. Christmas time is always the red letter day in the minds of the child patrons, particularly as then all are bidden to attend a little party, when gifts of toys, clothing, food, dishes, and even blossoming plants are presented as gifts.

"No one is so interested in the dispensary as Mr. L. C. Leake, who has given of time and money to supply many necessities. He has been there every day to get the food from the Sanitarium, for the past four years, with the exception of four weeks, when he was out of the city."

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 topics.

QUESTION. Is it permissible to eat between meals?

ANSWER. Certainly. One may eat whenever he is hungry, provided he has a natural appetite. There are many people whose stomachs and nerves are disordered and the hunger sense is abnormal; in such cases one can not be guided by his sense of hunger; he must be guided by his reason; but for a healthy man, a normal man, it is proper to eat whenever he is hungry. Nevertheless, it is better to be systematic and orderly about it, better to have regular times for eating, and the times for eating may be regulated to twice a day, or once a day, or three times a day. I think two meals a day is the ideal plan. Three meals a day is more convenient for many people. We have three meals a day here, but we formerly had two meals in the dining-room, till the call for evening meals became so general that we found ourselves sending out hundreds of trays. It involved too much labor, and we found it impossible to change the custom of the country, so we have the third meal at night. But personally I never eat the third meal.

Q. Why in this enlightened age must it be considered necessary that every child should be vaccinated against smallpox, even though not likely ever to be exposed to it?

A. The child going to the public schools when smallpox is in town is very likely to be exposed to smallpox, and it is really safer to be vaccinated than it is to have the smallpox, and general vaccination will prevent an epidemic of the disease.

Q. What makes a creaking noise in the neck on turning the head?

A. It is simply due to the slipping of a



Buttermilk Tablets

The value of scientifically soured milk has been proved beyond question.

The souring process is simple if you have a supply of the Bulgarian milk ferment,

Yogurt

Each Yogurt Tablet contains a culture of the lactic acid bacillus, and its action upon sweet milk produces a most delicious buttermilk.

But it is not necessary to make sour milk in order to get the full benefit of this germ-destroying organism.

The tablets may be taken just as they come from the package and the bacillus is thus thrown directly into the alimentary tract, where it prevents intestinal putrefaction and autointoxication—a condition of self-poisoning which arises from the decomposition of undigested food remnants lodged in the intestines.

Large package containing one hundred tablets sent post-paid for \$1.

Write for the Yogurt Book.

**The Kellogg Food
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Dept. S-9, Battle Creek, Mich.

A CHANCE FOR STUDENT NURSES

THE BATTLE CREEK SANITARIUM AND HOSPITAL TRAINING SCHOOL FOR NURSES

offers exceptional advantages to those who contemplate taking up the Nurse's profession. A Three-Years' Course is offered to Women, and a Two-Years' Course to Men. Over two hundred Nurses are employed in the institution.

The demand for Nurses who are trained in the Sanitarium principles and methods is constantly increasing, both in the institution and outside. A good salary awaits those who finish the course.

In addition to the usual subjects taught in hospital training schools, special attention is given to all branches of physiologic therapeutics, including hydrotherapy, radiotherapy, electrotherapy, 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.

For full information address

SANITARIUM - - Battle Creek, Mich.

COUPON

Send Us the Names of interested friends who you know would like to have the in-

formation contained in **THE BATTLE CREEK IDEA**, and we will send them free of charge a few sample copies. Simply write their names and addresses in the blank spaces below, cut out the coupon and mail to us, and we will send the papers.

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tendon, the gliding of one tendon over another. It is not often a serious indication.

Q. What are the signs of a diseased thyroid gland?

A. People who load their bodies with poisons, overwork their thyroid glands, which in consequence undergo degeneracy. Sometimes the thyroid gland, before it degenerates, becomes enlarged, and then there is exophthalmic goiter. There will be bulging of the eyes, trembling of the hands, rise of temperature, rapid beating of the heart, and other symptoms which indicate excessive activity of the thyroid gland. After that comes degeneracy. But in a great majority of cases the degeneration occurs without the intervention of this hyperexcitability. One of the functions of the thyroid gland is to regulate the functions of the skin; it regulates the growth of the hair. When a man is becoming bald, his thyroid gland is not as active as it ought to be. Or if a person has skin that is dry and parchment-like and there is very little perspiration, that means the thyroid gland is less active than it ought to be and is undergoing degeneracy. This induces old age. The same poisons that produce this diminished activity and degeneracy of the thyroid, produce degeneracy of the blood-vessels and hardening of the arteries, and that is the beginning of old age. People who have high blood-pressure are sometimes benefited to some degree by taking the dried thyroid gland of the sheep in tablets; but it is a remedy that has to be used with great care and always under the supervision of a doctor.

Q. What are antitoxic tablets?

A. They contain charcoal, maltose, sulphur, and menthol. They are a harmless means of hindering the growth of germs in the intestine.

Q. What would you think of the use of dioxygen for the sterilization of milk?

A. It depends upon the amount of dioxygen used. Dioxygen is something of an irritant, so it would not do to give it to children in large quantities, but a small amount might do no harm.

Q. Are the lungs capable of absorbing more oxygen at sea-level on account of the greater density of the air?

A. Yes and no. When the air is more dense, the lungs do not expand so much. We take less into the lungs, so they really do not get more oxygen in a low altitude than at high altitude.

Q. Can one inherit diabetes?

A. A tendency to diabetes may be transmitted by heredity.

Q. Is there any food value in bran?

A. Yes, bran contains phosphates, lime, and other salts which are useful.

Q. How soon after a meal may one drink water?

A. One may drink water whenever he is thirsty, but should not take a large amount of water at a time.

Q. What harm does benzoate of soda do?

A. True it is not a very virulent poison, but still it is not food, and it is more or less harmful. We do not need it in our food, and there is no excuse for using it, and we should insist upon not having it.

Q. Is smoking especially harmful?

A. Well, it is one of the most harmful things I know of. Tobacco smoke is deadly poison. It will kill flies in the greenhouse; it will kill pigs or sheep, it will kill snakes, and it will kill men. Nicotin is a deadly poison.

ARRIVALS

THE list of arrivals at the Battle Creek Sanitarium for the week ending November 11, is as follows: Robt. Young, O.; Floyd Shafer, Detroit; W. L. Lockwood, N. Y.; H. B. Lockwood, N. Y.; C. Milaneon, Mich.; Mrs. J. E. Gorman, Chicago; J. W. Martin, Texas; W. K. Van Derver, Omaha; T. O. Osborn, Oklahoma City; J. S. Francis, Kan.; J. C. Kealey, Little Rock; H. L. Adams, St. Louis; J. C. Tomlinson, Iowa; R. H. Whitman, Kansas City; Nettie Andrews, Chicago; Chas. A. Thayer and wife, Chicago; Ralph C. McCoy, Kansas; W. D. Bishop, Mich.; A. Ross, City; Charlotte G. Davis, N. Y.; Dr. H. W. Miller, China; Miss M. E. Knibs, St. Louis; Mrs. J. H. Graham, Iowa; Myra A. Gillette, M. D., N. Y.; Louis C. Purington, M. D., Mass.; Ella Gillette Ives, Mass.; Mrs. J. A. McClelland, Mass.; Rev. E. W. Bishop, Mich.; Mrs. Milton Kesler, O.; Mrs. G. A. Wright, O.; Mrs. L. S. Chapman, Ill.; Mrs. L. L. White and Mrs. Johnson, Chicago; Mrs. Frank McFarland and daughter, O.; Mrs. R. G. Wright, N. Y.; Mrs. Orville Ross, Ind.; Mrs. C. H. Booth, O.; Mrs. H. G. Bramson, O.; Mrs. K. A. Tyon, Nebr.; Jas. C. Kepperley, Indianapolis; W. K. F. Vela, Minn.; Mrs. Bertha Weil, Chicago; F. M. Freeman, S. D.; Mary Freeman, S. D.; C. F. Morre, Mich.; Mrs. E. R. Cuttie, Mass.; Mary G. Thompson, Va.; R. G. Taylor, Fanny W. Taylor, Ind.; Mrs. W. P. Scott, Mo.; H. F. Barnard, Denver; Emil M. Ely, Mich.; S. M. Simmons, Ky.; Mrs. H. Schersensky, Chicago; David Paulson, M. D., Ill.; G. E. Richard, Chicago; Mrs. L. W. Johnson, Chicago; Mr. and Mrs. S. R. Heade, O.; Helia Oberg, Minn.; John S. Swearingen, Ill.; Mrs. W. E. Sterling, Ia.; C. V. Bertsch, Ind.; Mr. and Mrs. Steeds, O.; Miss Emma McClung, Ind.; H. Halsman, Chicago; Geo. A. Bailey, Ia.; E. F. Thayer, Wis.; Clara E. Lloyd, Wis.; Mrs. H. M. Butts, N. Y.; E. C. Binder, New York; Lem Loy, City; Mart M. Wallace, Toledo; Thomas E. Jeffers, W. Va.; A. K. Wetts, Germany; N. M. Stevens, M. D., Detroit; Mrs. E. A. Rayce, Chicago; Rome G. Brown, Minneapolis; Mrs. H. C. Davis, N. Y.; E. A. Reper, N. Y.; Frank Bauman, Chicago; Dr. A. B. Oyen, Chicago; J. H. Willis and wife, Texas; Mrs. Mae E. Perry, Ky.; W. E. Ward, Tenn.; Mrs. Emilie F. Gregory, Ky.; Mrs. M. A. Cranmer, Pa.; Mrs. Frederick Abbe, Pa.; Ernst Gideon Bek; Walter Grear, Mrs. Walter Grear, Ill.; R. A. Kennedy, Chicago; C. A. Morton, wife and child, N. D.; Peter Thurlow and wife,

N. D.; John Sandlos, Can.; Mrs. J. Sandlos, Can.; T. M. Marriott, O.; H. M. Baumgartner, Chicago; Mr. and Mrs. C. Platke, Chicago; L. C. White, Chicago; H. M. Butts, N. Y.; F. M. Smith and wife, Okla.; Mrs. C. Reinheimer, N. Y.; John A. Bodkin, New York City; Mrs. J. C. Olmstead, Ia.; Mrs. W. C. Murphy, R. I.; Mrs. Catherine Geaham, Mass.; Harry Romer, Mass.; Mr. Glurri and wife, Texas; A. Zunder, Kalamazoo; Mrs. E. W. Miller, Miss Pearl Miller, N. C.; Henry C. Davis, Ind.; Gertrude McClelland, Mich.; F. M. Sprague, O.; Mrs. J. H. Mead, City; Edward J. King, Mich.; G. M. Shirk, Mrs. Geo. M. Shirk, Chicago; I. I. Stannard, M. D., Mich.; Frederick C. Shafer, Mich.; F. C. Shopen, Detroit; Geo. M. Togg, Mich.; A. J. Laughery, India; D. C. Roberts, Colo.; Ralph R. Bennett, Mich.; J. W. Young, Mich.; Frederick C. Leary, N. Y.; Mrs. John L. Bright, Mont.; Mrs. Abe Brody, Ia.; H. F. Trabough, Tenn.; H. O. Sane, Minn.; E. A. Binder, N. Y.

News and Personals

A fine program was rendered in the lobby on Saturday evening by the Sanitarium orchestra under the direction of Mr. Drever. The audience was large and very appreciative.

Dr. David Paulson, of Chicago, made a visit of two or three days at the Sanitarium, where his visits are always a source of pleasure. In morning prayers in the parlor, and in the devotional service in the bathrooms he was especially helpful.

Among recent arrivals at the Sanitarium were Messrs. Ricker and Bowman, two football players of Olivet College, Mich.; Mr. H. Trobaugh, a champion chess player of Des Moines, Ia.; and Mr. Morris, of Fargo, N. Dak., a Grand Army man who, with the exception of three months, had the honor of serving on General Sherman's staff all through the war.

On last Monday evening Dr. Benton N. Colver delivered a lecture before the Sanitarium guests on the topic of the "Fundamental Principles of the Battle Creek Sanitarium." The lecture was regarded as an unusually clear and forcible presentation of the subject and was listened to by a large audience. We hope to present the lecture to our readers in next week's paper.

Rev. Edwin W. Bishop, D. D., pastor of the Park Congregational Church of Grand Rapids, accepted an invitation of the Sanitarium managers to spend a few days resting at the institution. While here he kindly addressed the family on two occasions, and was helpful in many ways. Upon departing to resume his arduous labors, he expressed himself as being greatly refreshed with his short sojourn here.

The friends of Dr. A. B. Oyen, of Chicago, were glad to welcome him for a short visit at the Sanitarium over the week end.

Doctor Oyen has a large practice in the northwestern portion of Chicago among the Scandinavian people, especially. He is on the staff of two hospitals. He has been recently greatly bereaved in the death of his estimable wife, who was formerly an instructor in Battle Creek College.

The service in the chapel on Sabbath morning was conducted by Rev. Edwin W. Bishop, pastor of the Park Congregational Church of Grand Rapids, Mich. The subject of his discourse was "Christian Enthusiasm," and was based upon the three steps in the experience of the lame man walking, leaping, and praising God, which he characterized as, first, strong conviction; second, emotional experience; third, enthusiasm at work.

In the parlor on Sunday evening a large audience was gathered. The meeting was addressed by Mrs. John X. Miller, of South India, who told in a very interesting manner the details of the work being done in the neighborhood of Madura by herself and husband. Their work is largely educational, they having a very large training school for boys and another for girls. In addition to this work there is also a dispensary carried on by Mrs. Miller and a trained assistant, where large numbers of patients are treated daily.

On Tuesday evening a very fine concert was given in the gymnasium under the supervision of Mr. Drever, the Sanitarium musical director. The artists of the occasion were Miss



**PROPER
BODY
BALANCE**

To be sure that the building-up process going on in the body equals or exceeds the breaking-down process, requires scientific feeding.

Do You Know How

to plan a scientific diet for yourself—a diet that will keep your body in "fighting trim?" If not, let us assist you.

Write for our free book, "Healthful Living."

THE KELLOGG FOOD COMPANY,
Dept. P-10,
Battle Creek, Michigan:

Please send me a copy of "Healthful Living."

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Margaret Lawson Mulford, a fine contralto soloist, and Mdme. Sturkow-Ryder, a celebrated pianist. Both these ladies are well known in Chicago, and a large audience gathered to enjoy the long and varied program which had been arranged. The frequent and prolonged applause testified to the fact that these artists were not disappointing their audience. Seldom have more brilliant or more tender strains been rendered on the pianoforte in the Sanitarium than were heard on Tuesday evening from Mdme. Ryder. Her technique is simply charming.

On Friday evening a special meeting of the Christian Endeavor was held in the Sanitarium chapel under the auspices of the Calhoun County Convention. The president for the county, Rev. C. A. Albright, conducted the meeting, devotionals were led by Mr. W. C. Kellogg, president of the Sanitarium Christian Endeavor Society; the address of welcome to its delegates was given by Miss Coral Beckwith, and a stirring address was given by Rev. John X. Miller, of South India, upon the subject of "What Christian Endeavor is Doing for Missions," which was followed by a very earnest address by Rev. C. E. Puffer, of Albion, Mich., upon Christian Endeavor's greatest need. The Calhoun County Association, which this year is being entertained by the Presbyterian Church, was invited to hold its next convention at the Sanitarium.

The Sanitarium always extends a warm welcome to those patients who return for treatment, rightly judging that the fact of their return is the strongest recommendation of the value of the work done by the Sanitarium and its able staff. Among the list of returned patients for this week, we note the names of Mrs. Bertha Weil, of Chicago; Mrs. Cora Wright, of Westfield, N. Y.; Mrs. Julia K. Crammer, of Sheshequin, Pa., who was accompanied by her friend, Mrs. F. Ahbe, of Athens, Pa.; Mrs. Mary Perry, of Chicago; and Dr. Ione Stannard, of Petoskey, Mich. Mrs. L. M. Campbell Bixby, of Poultny, Vermont, is well and kindly remembered as a patient here some years ago, and last year she visited us in company with her husband. This lady has enjoyed excellent health since her first stay at the Sanitarium, until a recent runaway gave her a severe nervous shock, and her choice was to return to the place where she had already found health.

In this week's arrivals are Mrs. E. F. Gregory and her daughter Elizabeth; Mrs. C. H. Booth, whose husband is a banker in Bridgeport, Ohio; Mrs. H. C. Davis, of Rochester, N. Y.; and Miss Margaret M. Wallace, superintendent of nurses of Toledo Hospital; Mr. Charles A. Thayer, a druggist of Chicago, who is accompanied by his wife; Mr. F. M. Freeman, of Gettysburg, S. Dak.; Mr. S. R. Heade, a broker of Cambridge, Ohio, who is accompanied by his wife; Mr. John V. Swearingen, a business man of Champaign, Ill.; Mr. E. C. Binder, a business man of New York City, who with his wife is taking a course of treatment; Mr. Walter Grear, a business man of Anna, Ill.,

who is accompanied by his wife; Mr. M. Iturri, a retired merchant of San Antonio, accompanied by his wife; Mr. Frederick C. Leary, a prominent business man of New York City; and Mr. A. J. Loughesy, a well-known business man of Edenburg, Ind.

A lecture of unusual interest was given in the parlor on Thursday afternoon by Rev. Edwin W. Bishop, of Grand Rapids, Mich. The topic was, "The Pilgrim Fathers in Pilgrim Lands." Mr. Bishop has made a careful study of the history of the Pilgrims, and has visited in the Old World the towns and neighborhoods in which the Pilgrim fathers suffered in their struggle for religious freedom; and the beautiful pictures shown by the stereopticon, many of which were made from photographs taken by himself, made the story of their trials very realistic. Then picture and story portrayed the sturdy, daring Pilgrims sailing from Old England's shores in the gallant Mayflower. The perilous voyage, the historic charter drawn up in the cabin of the Mayflower, the landing, their perils unnumbered during those first two winters, were all lived over again; and the pictures of the first street and houses in old Plymouth, together with those of the modern town, the historic rock and statue, all combined to make an instructive and enjoyable afternoon. Mr. Bishop is to be congratulated upon having a summer cottage upon the site of the old homestead of Miles Standish.

Dr. James Chapman, president of the Southlands College at Battersea, England, has for several weeks been a guest of the Sanitarium, taking rest and treatment after forty years of unbroken service. Doctor Chapman says this is the first time in all his active life that he has taken such a rest. He forbade his people sending him any word of the progress of the work either good or bad, and thus cutting himself off from care gave himself wholly up to the work of recruiting

his health and strength. We are glad to report that he is very happy in his good rest and in receiving a new quota of energy and health for future service. His college is a government school for training teachers. Doctor Chapman is a member of the British Educational Commission, and is taking the opportunity to look into the American public school system by visits to the local high school, which is a model in its line, and visits to Ann Arbor, Madison and Chicago. Doctor Chapman has consented to speak to the Sanitarium family on next Sabbath forenoon in the chapel at eleven o'clock. This is his third visit to this country, he having on one occasion delivered a course of lectures at Vanderbilt University, Nashville.

A very interesting letter has been received by Miss Zahn from the Misses Sophie and Luba Kodjbanoff, two Macedonian girls who took the high school course in the Preparatory College of the Sanitarium, and afterward graduated from the Sanitarium Domestic Science Training School. They then took a kindergarten course in Valparaiso, and Miss Sophie then studied in the University of Chicago, taking her A. M. degree from that institution of learning, three months after her twentieth birthday. The letter speaks with gratitude of the kindness shown them in the Sanitarium, and especially for the affection and continuous supervision given them by Miss Zahn, who greatly encouraged and helped them during their course. It also tells of their being comfortably settled in a little home with their mother, and gives many details of their life as teachers in one of the schools of Samokov. Naturally the life there is rather quiet and monotonous after so many years in America, but they write: "It is sweet to feel that we are doing our duty toward our mother and our country." This is only one instance of the far-reaching beneficent work that is all the time being done in the Sanitarium.



A HEALTHY CELL



NERVE CELL POISONED BY TOBACCO

Our readers will recall the excellent lecture by Dr. A. J. Read on "The Cigarette," published last week, and will probably have noticed a reference to two nerves which were supposed to have been illustrated. Inadvertently the illustration was left out, and we produce it here. It is intended to show the effect of nicotine upon the nerve cells. One of these cells is intact and nearly normal, while the other is impaired and its delicate tendrils are destroyed. It has lost its power of co-ordination, and loss of memory and perception is the consequence. Doctor Read remarked that, speaking in general terms, all the nerve cells in the body are affected in this way by the use of the deadly cigarette.

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HEALTH AND HOW TO PRESERVE IT

Fundamental Factors in the Question of Health, and Basic Elements in Promoting Good Living—From a Parlor Lecture by Dr. Benton N. Colver

For fifty years this institution has stood here, showing the causes of disease, teaching

Electricity in Medicine

The Employment of the Mysterious Force by the Battle Creek Sanitarium as a Remedial Agent

It is not much more than 100 years since Ben Franklin "tamed the lightning," and it was several years after this that Morse "taught it the English language." Since that time

THE GREATEST STUDY OF MAN IS MAN

The Study of the Human Body is Neglected, Says Dr. J. H. Kellogg in a Popular Lecture on the Liver

In Mexico some years ago we started a missionary dispensary, and a great number of ignorant Mexicans came in there and I was astonished to see how well informed they



THE NEW SANITARIUM GREENHOUSE

prevention, and exemplifying the principles of simple, healthful living. This is no secret cult; we have no "black bottle" remedies; there is no mystery about the methods or processes employed; the entire system rests upon simple obedience to natural laws, the recognition of the ability of the system

(Continued on page three)

mankind has become better acquainted with this mysterious presence whose voice had heretofore been heard only in the thunder, and whose awful power was manifested in the lightning bolt in its terrific and freakish force. Since men have learned to harness this force to the car of industry and progress

(Continued on page four)

were in relation to their anatomies. One said, "Doctor, I am afraid there is trouble with my spleen." I was astonished that one of those people in the mountains knew he had a spleen. But he knew all about it, and knew where it was, too. And he made a correct diagnosis, for there was trouble with his spleen.

Original from
UNIVERSITY OF MICHIGAN

We Americans have become so civilized that we neglect our bodies to an extraordinary and dangerous degree. In the public schools even the study of health is left almost entirely to the very elementary classes; and laws requiring the teaching of physiology were obtained against a great deal of opposition. One teacher said, "I think it is very objectionable.

It Makes the Children Shudder

to see pictures of their insides." He really thought it was almost wicked for the children to have pictures showing the interior of their bodies.

As yet the study of health is confined to the elementary schools. We need to have the study of physiology carried up into the universities. Nobody ever ought to be allowed to receive a learned degree who does not know about *himself*. A man spends years learning how to read about Caesar's bridge building. The same man spends six months learning how to build his own body or how to take care of it. A girl will learn how to say "A little yellow dog" in four or five languages, and it is nothing but little yellow dog when she has said it. It would be a great deal better to have half a dozen useful ideas and to be able to express them well in one language, than to have half a dozen different ways of expressing no idea at all.

The most useful things are left out of our curriculum. I feel like protesting against our modern curriculum of education whenever I get a chance; it is modeled too much after the old medieval ideas; too much respect, too much reverence is taught for ancient learning, for the dead languages. These dead languages do just about as much good to the average, practical man as they did to a certain quack doctor who heard of a case in which a man was convalescent, and said, "Convalescent—why, I have cured many cases of convalescence."

Or we might cite another case: a doctor was telling about these dead languages and these awful words the doctors were using, "enough to scare a patient to death," he said. "For instance, there is *e pluribus unum*. I have cured many a case of it under the simple name of pleurisy."

Let us have more practical instruction, and let us have more practical knowledge. As a matter of fact, the average man doesn't know where his liver is until he begins to have pain in it, and then he is likely to make a mistake and locate it on the wrong side of his body.

This Liver Weighs Three Pounds and a Half,

and is one of the most wonderful of our internal organs. It has more different functions than any jack-of-all-trades you ever met. It does more different things than any other organ in the body. Everybody knows that the liver makes bile; but I presume that very few know the many wonderful things the liver does. One of the things the liver does is to help to digest food. All of the food that is absorbed by the great blood-vessels is compelled to pass through the liver before it gets into the general circulation; and it is a part of the duty of the liver to act as an inspector of food, and not to allow it to pass along unless it is wholesome. And

the liver does that work as well as it possibly can.

Sometimes people heap upon it such enormous quantities of unwholesome things, of fats, of highly shortened and highly seasoned gravies, pastries, condiments, tea, coffee, beer, and things of a similar sort, that by and by the liver is overwhelmed with more work than it possibly can do, and falls down in despair, and you say, "Oh, my liver is torpid."

The Liver is Not Torpid;

it is simply worked to death. You go to the doctor and require him to give you something to stir up your liver. The liver does not need stirring up; it needs rest. The liver works faithfully and beneficently for us; it is a self-sacrificing organ, and continues to do its work in spite of all the abuse that is given it, as long as it possibly can work. We take a flood of poisons into our bodies, and the liver gathers out all of these poisons it can, it culls them out of the blood to save the brain and nerves and the rest of the body from the damage that the poisons would do. The liver takes them into itself and holds them. It may be there is lead in the water, the liver takes the lead out and deposits it in itself, so that the body is saved; but by and by the liver is worn out, gets saturated with lead and can not take it in any more; then the lead goes right into the body, and there follows what is called wrist drop or lead paralysis, because the liver can not longer take up the lead.

Perhaps a doctor gives a patient a dose of calomel, or blue mass, and he feels better. That calomel has to be taken into the liver, and while part of it is discharged from the body, part of it goes into the liver, and the liver sacrifices itself and is damaged by this deposit of mercury in its tissues; and every time he takes such a dose he does himself harm, and the more often that harm is repeated, the sooner the liver will be used up.

The liver is badly damaged by alcohol. Because alcohol does the brain harm, the liver takes the alcohol into itself until it is completely impaired and can not take up any more; then the alcohol goes into the rest of the body, and the body gets the damage that comes from the contact of alcohol with living tissues.

Another Office the Liver Has

is to destroy poisons. There are certain poisons it can not destroy. It can not destroy lead, it is a metal; it can not destroy mercury or arsenic, iron or other metallic substances, which are taken into itself, but it can destroy certain poisons. If you put lead into a stove it will not burn, but you put tobacco in a stove and it will burn; the nicotine and other poisons of tobacco go to the liver, and the liver can actually burn up some of those poisons. There is enough poison in a single cigar to kill two men, and the first cigar a boy smoked would kill him outright were it not for the fact that his liver fights for his life, and destroys the nicotine; and the liver goes on doing that every time the man smokes.

It is the same thing when you take a cup of tea or coffee. The liver takes up the caffeine or thein and holds them in itself and helps to destroy them.

The same thing happens when you take beefsteak. Part of the business of the liver is to destroy uric acid; it converts it into urea, which is comparatively harmless. Flesh always contains uric acid. The liver can convert six grains of uric acid in a day; that is a day's job for the liver; and beefsteak contains fourteen grains of uric acid to the pound. That poor liver has to do two and one-third days' work for every person who eats a pound of meat in a day. Suppose a man eats two pounds in the course of a day, then the liver has almost five days' work to do for that meat that is eaten that it never ought to have to do at all.

If it were a dog's liver, it would be different, because a dog's liver can do four times as much work as a man's liver. It is accustomed to a meat diet. The turkey buzzard's liver is about a ten-horse-power liver. A turkey buzzard's liver can burn up a whole lot of poisons and can destroy very much uric acid and other filth. It is a regular crematory, but a man's liver, not being intended for that sort of diet, has a smaller capacity for destroying these poisons.

A Very Important Office

The liver has something else to do of a very important nature. In the blood stream coursing through our veins there are many millions of blood-cells. Eight million of them die every second, and they have to be disposed of in some way. The liver is the place where they are disposed of. It takes these dead cells and works them over into various useful things. The potash which they contain goes down into the intestine along with the bile to form an emulsion. The fats we eat can not be absorbed unless they are emulsified; this renders them soluble so they will be absorbed along with the water. That is a very useful operation. It is an economical arrangement.

Another economy that is operated by the liver is in the conservation of coloring matter. We have to have coloring matter to color the hair and the eye. As the hair is always growing out, we need a constant supply of coloring matter to color the new hair that is growing. The faculty of sight is procured by a very curious arrangement in the eye. There is a dark screen on the back of the eye, and the objects we look at are produced upon this screen by a bleaching process; the rays of light bleach out the dark color of the screen, so the picture is made in pure white, bleached out by the light. So we need coloring matter to recolor the curtain; to keep this room in the eye dark, we require a continual supply of coloring matter.

This Coloring Matter Comes from the Liver.

The liver saves up all the little particles of color that are found in the red cells that die, gathers them up, sends them back to the body to be used in tinting the skin, the hair, the eyes, and other parts of the body.

This picture (see p. 3) shows this wonderful organ we are talking about, with its several lobes and the gall-bladder where the bile is stored up; we see also the large vein that brings the blood into the liver, and there is also a large vein into which the blood is discharged after it has been purified, and is

carried on up to the heart to be distributed to the rest of the body.

I saw a wonderful experiment performed at St. Petersburg four years ago when visiting the laboratory of Professor Pawlow, where I spent a couple of weeks through his courtesy. This experiment consisted in so changing the portal vein of a dog that the blood, instead of going through the liver, would go into the outlet vein and thus escape the process of purification in the liver. This dog got along all right, seemed just as well as any dog, so long as he adhered to a diet of bread and milk; but as soon as he was given meat he became sick, and after being fed meat for three days he was a dead dog.

I want to say to you, my friends, that some of you are almost as bad off as this dog; you have livers that have been abused so long, and have become so crippled by the long-continued use of tea, coffee, pepper, and by uric acid and other poisons, that they are incapacitated for longer doing their work. There is only one way out of such a condition, and that way is spelled by the word *Reform*.

HEALTH: HOW TO PRESERVE IT

(Continued from page one)

to care for itself if we do our part in supplying right conditions. There are some foundation considerations in the establishment of sound health.

Inevitable Conditions

There are certain *inevitable* and ever-present conditions which serve to modify the degree of health, and we have first of all to consider them. There are racial conditions which affect the members of the various races, certain racial characteristics or tendencies that cast an influence upon the health of those who belong to any race of men. One of these characteristics is the immunity or liability of any race to certain communicable diseases. Take a certain specific disease and it will be found to be much more prevalent among the members of certain races, and much more rare among others. Some races can live under conditions that would be fatal to those of other races.

Another very important and ever-present factor to be reckoned with is the age of the individual. We all know that the infant has certain things to contend with which the adult has outgrown, and as a person grows old there are certain infirmities and diseases which inevitably come on. We might mention the hardening of the various tissues of the body, the eye, for instance. After a person reaches the age of forty, no matter if they have had excellent eyesight until that time, the elasticity of the eye is diminished and the individual is unable to see as well as he had seen up to that time. And other tissues, of course, are affected in the same way.

Another factor is that of sex. The functions and structures of the body vary, and for this reason there is more or less susceptibility to certain diseases. Heredity is also to be considered. This is the health capital that we have bequeathed to us. This depends not only upon the immediate family—father, mother, or grandfathers and grand-

mothers, but upon the whole line of ancestry extending back for generations. Someone has expressed it that a person is launched into the world with a certain momentum, a certain force of push behind him, which is his heredity. Any one with a given heredity can squander it. We have all seen such cases. A person born of good, live, vigorous stock may himself go to pieces in the early part of his life, simply because he has wasted his health capital. On the other hand, a person with less desirable heredity than the first may cultivate it, and may actually increase his stock of health. These things are the inevitable factors which each must take into consideration as affecting his personal health.

Accidents

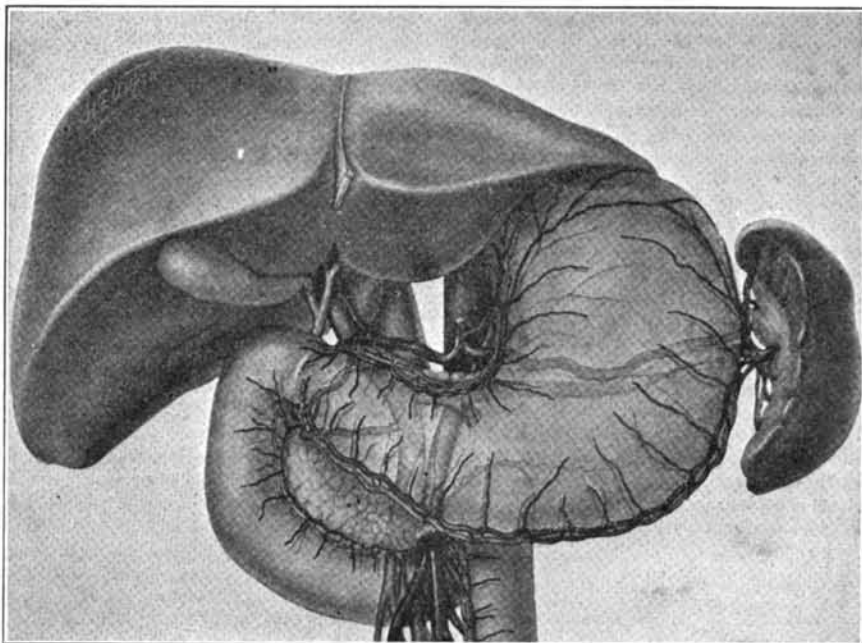
There are also the accidental factors. In this day and age of the world, these factors are being increased. The amount of travel is immensely greater than it used to be, and

cases of plague. The mosquito is also a disease carrier. We all know that up to a few years ago the real cause of the transmission of malaria was not understood. Down through Indiana, for instance, people said they lived in an ague and fever country, because the miasm came up from the valleys and gave everybody "the shakes." Now we know that it is not the miasm or the mist at all, but the mosquitoes.

Having laid down these foundation consideration, we will consider some of the most

Essential Elements in the Preservation of Life and Health.

The first thing actually necessary to life is air. A person can live without air but a few moments. To discontinue the intake of air for a very short time is inevitably to shut off life. If the air supply is impure or insufficient in any way, it can not but have a great influence on the person's health. If air is an absolute essential to life, the quality



THE LIVER AND STOMACH

the speed of travel is greatly increased; and accidents connected with traveling are increasing. Accidents in connection with industries are also increasing for various reasons. These are things which may befall anyone, which we can not foresee or forestall.

There are other kinds of accidents, such as contact with diseased individuals; one never knows the conditions of the persons whom he may meet. When one gets into a crowded place, he never knows what disease may be communicated to him. This, of course, is accidental. Then, again, there are animal parasites with which one accidentally comes in contact. We may mention the common enemy of all, the fly, who certainly has to his credit or discredit a great deal of disease communicated to individuals. The same is true of the flea. In this country one does not think so much about that insect, but in all warm countries it has been shown that the flea is responsible for a large number of

and quantity of that air must have a great influence upon the health. There is more to living than simply existing. There are many people who breathe enough to keep alive, but do not have such an abundant supply of fresh air as would make them vigorous and active. A person actually renders impure about three thousand cubic feet of air every hour.

The next thing we will mention is water. A person without water will die sooner than if deprived of any other one thing, except air. This has been shown by experiments. Of course our food contains quite a large amount of water. The amount of water which we actually drink perhaps is not very great, but the amount of water which we take in with the foodstuffs is really quite large. The same considerations as relate to air are true with regard to water. The supply must be abundant and pure. A free supply of water to the body is essential to

give a medium in which the poisons of the body can be washed out. A number of years ago fever patients and surgical patients were

Actually Deprived of Water.

I once heard of a patient who had an operation, and in order to be kept warm had a hot water bag in the bed. Whenever the nurse would go out of the room, he would take a drink out of the bag. Of course he made a good recovery, and told about it only afterward. In the past few years, however, patients need not get their water in that way. In all sorts of complaints water is freely used and urged upon the patient. For instance, in a plain cold the more water a person can drink in the course of the first twenty-four hours, the better, because it actually flushes the system and takes away a large amount of the tissue poisons which in the first place made the person susceptible to cold, and in the second place are poisoning him, causing fever, chills, stiffness and soreness.

The next item to be considered is food. This also is an absolute essential. One of the things which the Battle Creek Sanitarium has stood for for half a century is a pure dietary, enough food and not too much, and food which is balanced and adapted to the needs of the body. The body requires three kinds of foods in the proper proportions. We must have food which will give the body energy to do things, and besides that, food that will build up the body as it is torn down by work, and enable it to grow. A growing child needs a greater proportion of protein, which is the building, growing food, than does an adult person, because he is increasing in bulk. A person who is underfed is naturally not in good health. On the other hand, if a person is overfed, he is not in good health, because he throws into his system food which can not be absorbed and utilized and which remains there undergoing decomposition. Instead of the food being absorbed and doing the person good, the poisons formed from it are absorbed and do him harm.

We May Also Speak of Light.

A person can live longer without light than without air, water or food. But light is one of the necessities for the continuation of proper life. You all know how sprouts grow on potatoes kept in the cellar. They will continue for a while, but they are pale and unhealthy. The same is true of individuals deprived of light. An experiment was made a few years ago on the amount of carbon dioxid put out from the lungs, in other words, the amount of fire within a person's body. A person was put into a dark room and the amount of carbon dioxid was measured. Then the person was taken outdoors into the light and the sunshine where the light could strike his whole body, and without exercise the carbon dioxid increased to more than twice as much. The sun stimulating the entire body, actually doubled the natural fire within. Light, then, is a wonderful factor in living. A few years ago an observation was made in our outdoor gymnasium. It was noted that out of 200 or 300 men, those who responded to the sunshine and became tanned, gradually turning from the pale white of a man's skin not exposed to the sun and air, to a normal, beau-

tiful tan color like the Indian's copper, improved in all their systems. Those whose skins burned so they blistered and later cracked and peeled, were not improving in other ways. We might say that that was an indicator of their improvement as judged by the reaction of their skin to the sunshine. Tan in the skin is the same thing as the green in the leaves. It is the natural protective pigment deposited in the skin under the stimulation of the actinic rays of the sunshine.

Many people do not like the appearance of tan, but it is an indication of healthy reaction and not of diseased condition. In winter sun-baths are very difficult to give outdoors, so we have the ordinary incandescent light bath, which does not contain much of the so-called chemical or actinic ray, and the powerful are light, which contains six times as much of the actinic ray as does the sunshine.

Exercise

The next factor we will speak of is physical work or exercise. This is essential. A person with proper air, water, food and light, without work, would not enjoy life, he would not increase in vigor, he would soon become a helpless creature. A proper amount of physical work is necessary. There come to the Sanitarium in the course of a year hundreds of patients, and most of these have not had enough physical work. People whose principal exercise is in walking from the front door to the street car, and from the street car to the office, or something of that sort, suffer from the lack of physical work.

The idea of getting exercise has pervaded the whole country, and we see golf grounds, tennis courts, gymnasiums, walking clubs, and all that sort of thing that are intended to help the business men, clerks and the shop girls to get in some way or another the physical work which is absolutely essential to healthful living. But here in the cases where people are often debilitated from long inactivity, it is sometimes hard to get them to do the work. It is easy to get them in the gymnasium for a few minutes with music for exercise with dumbbells or Indian clubs, but to get the patient down to a real thorough job of work for an hour is often impossible. So we have mechanical means of getting them to work. By these things, I mean the mechanical Swedish movements. Down in the mechanical Swedish room you sit down on a chair and your whole body is shaken, vibrated, so that the circulation is quickened, the nerves are stimulated, and the muscles worked to a certain extent, so that one gets the exercise without doing any work, and that is an essential thing sometimes when a person has not been used to work.

The same is true of massage. General massage to the whole body so kneads and manipulates the muscles that it is the equivalent of work. I would not advise the substitute as a regular thing, but for a person who has not been used to work it is a very valuable means. Manual Swedish movements are halfway between massage and gymnasium work, the person doing a part of the work, and the operator doing the rest.

They are all aiming at the same thing—to get the person to do a proper amount of physical work. Gradually one can be edu-

cated up to taking exercise for himself, which of course is greatly to be preferred.

In contradistinction to work, we mention rest, which is the complement of exercise. Rest may be taken as sleep or in assuming a passive attitude of body and mind, or in a change of occupation. An outing is actually a rest, though it may involve unusual effort and weariness. Sleep is needed to enable the brain and body to build themselves up. In the brain are little brain cells which are filled with fuel granules. At the close of a day these granules are greatly diminished in size and number. When a person goes to sleep, the granules re-appear in the cells, and energy is thus stored for the morrow.

Mind and Body

The last thing to be mentioned as the keystone of the whole, is the mind. One hears a great deal about the influence of the mind on health, on the life, on the body. Some are misled as to the influence of the mind on the body. There is no question that the mind does have an influence on the body; it should have. In the first place, a man's mental attitude toward himself has a great deal to do with his life. A man who gives up the fight, who is blue and discouraged and morose, certainly does not resist disease, does not grow and develop and become vigorous like the man who is buoyant, the man who wills. Every individual must

Believe in Himself

and believe in what he is doing; otherwise his mind is against himself; and no matter what the other factors are, he is fighting against his own welfare. Then, again, his mental relation to his fellow men must be right. One can not conceive of a man who is against his fellows being truly for himself.

A man's mental attitude toward his Creator is the greatest consideration. A man certainly must look to the source of life in the proper perspective; otherwise life to him is something apart from the Source of life, something by itself. The force which creates the body, which produces the body in the first place, maintains it. The evidence of that is in ourselves. The same Power which is active when one is awake maintains life while he is asleep and knows nothing about it. So when he is sick, the same Power which made the body and maintains the body in health is still acting and producing those factors which restore health.

These are the fundamental things which in my opinion make for health—the things which come into all of our lives from the time we are born to the time we die, to make of us what we are. A man can help in this scheme, or he can hinder in it, of course. He is entirely free in these matters of health. He can co-operate with the force which created him, or he can, on the other hand, work against it.

ELECTRICITY IN MEDICINE

(Continued from page one)

it has eclipsed in its utilities all other of the forces of nature—wind power, water power, and steam power have all been left in the rear by this beneficent newcomer into the arena of human affairs. What remains to

be discovered of its versatile powers, no one would dare to predict. It has

Passed into the Realm of Medicine

and is now more than ever called upon to minister to those who are weakened through suffering and disease. While we are held in awe of its terrific power as manifested in deadly bolts from the highly charged wires that overhang our heads, the most delicate invalids find solace and soothing in the gentle waves which pass in soothing thrills through their nerves and various tissues.

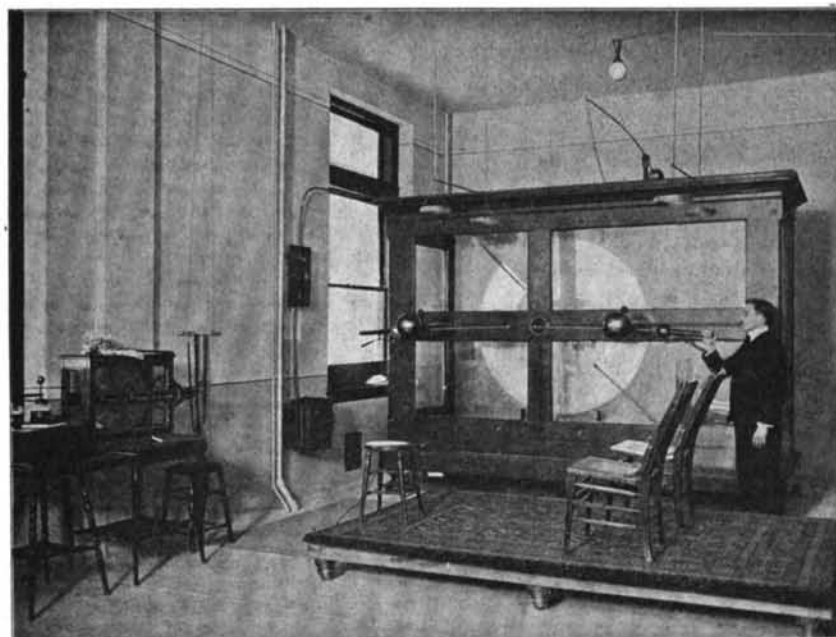
The managers of the Battle Creek Sanitarium were among the first to perceive the help that could be gained from so potent and universal a force. Electricity is one of the essential powers of the natural world, one of the elements in which we live, move and have our being; as universal as the air we breathe; capable, like the air, of wielding

within the shorter time much better results than under the old bath with far less loss of strength and vitality, for the old Turkish bath was a serious drain on the vitality of a weak patient. And in addition to the heat of the electric lights, the light itself penetrating the tissues awakens new life and vigor and the bath becomes a tonic as well as a depurating agent. The electric-light bath is largely employed in the Sanitarium treatment rooms, no less than fifteen of them being in constant use.

Not only is the incandescent light employed, but more recently the

Penetrating Rays of the Arc Light

with greatly increased powers have been brought into use. Rays of 6,000 candle power are brought into requisition in the treatment of the skin. High frequency currents of won-



SANITARIUM STATIC MACHINE

destructive force, and potential like the air in ministering to men in many ways.

For many years the gentler currents of

Galvanic and Faradic Electricity

were employed in local applications as stimuli and sedatives, and were introduced into the water baths, in all of which they abundantly proved their power for good. Then the incandescent light was brought into requisition by the superintendent of the Sanitarium in the now famous electric-light bath, which originated in this institution and quickly won its way over and around the world, and was soon found in the homes of kings and emperors. The electric light carries the two salutary forces of heat and light, both of which are of the greatest value therapeutically. As a heating agent the electric-light bath eclipses the old Turkish bath. In the former the patient obtains in eight minutes that for which he was formerly obliged to stifle in a heated room a half hour. He ob-

derful power are used to treat the most delicate tissues, so completely does this mysterious force lend itself to the needs of suffering humanity. The famous X-ray is also employed with its penetrating power to discover pathologic conditions, to point out the real seat and nature of troubles that without their aid would perplex the physician, and the therapeutic effects of this wonderful agent are being most thoroughly and carefully studied with great results for good.

While the beneficial effects of luminous treatments are being followed up so thoroughly, the more direct application of electricity to the system is also being developed.

The Sinusoidal Current

was discovered and developed in this institution. This is an alternating current whose influence in many diseased conditions is very beneficial. The application of static electricity for sedative effects is also used very extensively in the treatment of many forms of nervous ailments.



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Each Yogurt Tablet contains a culture of the lactic acid bacillus, and its action upon sweet milk produces a most delicious buttermilk.

But it is not necessary to make sour milk in order to get the full benefit of this germ-destroying organism.

The tablets may be taken just as they come from the package and the bacillus is thus thrown directly into the alimentary tract, where it prevents intestinal putrefaction and autointoxication—a condition of self-poisoning which arises from the decomposition of undigested food remnants lodged in the intestines.

Large package containing one hundred tablets sent postpaid for \$1.

Write for the Yogurt Book.

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THE BATTLE CREEK SANITARIUM AND HOSPITAL TRAINING SCHOOL FOR NURSES

offers exceptional advantages to those who contemplate taking up the Nurse's profession. A Three-Years' Course is offered to Women, and a Two-Years' Course to Men. Over two hundred Nurses are employed in the institution.

The demand for Nurses who are trained in the Sanitarium principles and methods is constantly increasing, both in the institution and outside. A good salary awaits those who finish the course.

In addition to the usual subjects taught in hospital training schools, special attention is given to all branches of physiologic therapeutics, including hydrotherapy, radiotherapy, electrotherapy, 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.

For full information address

SANITARIUM - - Battle Creek, Mich.

Patients wholly unaccustomed to the use of electricity are apt to be somewhat in dread of its occult powers, for they know that there is an intimate relation between that which is to thrill through their systems and the lightning that shivers the oak, and they are naturally a bit suspicious of what may happen. But this dread is soon dissipated with better acquaintance, and even the most nervous patient soon comes to enjoy with keen delight the various applications of electricity as they are given in the hands of careful operators under the supervision of skilful physicians.

THE SANITARIUM GREENHOUSES

We present on the first page a picture of the newest addition to the capacity of the Sanitarium florist and vegetable department for producing winter flowers and vegetables. This new building is 30x150 feet in size and will take over 10,000 plants of lettuce or similar plants. The first crop is now being utilized and it is estimated at nearly two tons. The area of greenhouses now utilized by the Sanitarium is not far from a half acre, and the houses consist of five main buildings. These are sufficient to supply the large family with an abundance of fresh and succulent vegetables throughout the entire winter. They also produce sufficient flowers so that the rooms of shut-in patients are always supplied with cheerful blossoms. The lobby, dining-rooms and parlors, as well as many of the offices, are also furnished with goodly offerings of these beautiful gifts of nature.

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 topics.

Q. Are maple syrup and maple sugar good food?

A. They are the same thing as cane-sugar, not the best food because they are more or less irritating to the stomach.

Q. What is the difference between hyperthyroidism and exophthalmic goiter?

A. They are much the same thing. Exophthalmic goiter is a condition in which the disease is a little more pronounced and severe than when it is called hyperthyroidism.

Q. What causes autointoxication?

A. The real cause is putrefactive germs. Food substances being retained in the intestine undergo putrefaction; an excess of protein in the form of eggs or meat, sometimes in the form of cow's milk, encourages the growth of these germs, and so encourages the formation of poisons in the intestine which, having been absorbed into the body, produce intoxication.

COUPON

Send Us the Names

of interested friends who you know would like to have the information contained in THE BATTLE CREEK IDEA, and we will send them free of charge a few sample copies. Simply write their names and addresses in the blank spaces below, cut out the coupon and mail to us, and we will send the papers.

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ADDRESSES

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Q. Is fletcherizing good for persons who have highly acid stomachs?

A. No; people with highly acid stomachs should use food that does not require chewing, and swallow it at once, and should take considerable fat also, so they will not stimulate the appetite juice which results from chewing.

Q. What is the best position in which to sleep?

A. The position in which one is most comfortable, in which one can sleep the best. I find it of very little use to give people directions as to what to do while they are asleep. When they go to sleep, they will do about as they please in spite of any advice.

Q. Can a person whose bowels move once a day be healthy and suffer no trouble?

A. For chronic invalids, it is better to encourage two or three movements a day rather than one, as this lessens the possibility of autointoxication, and reduces the amount of the poisons absorbed to the smallest degree possible. A thoroughly healthy mucous membrane can not absorb these intestinal poisons. It is impervious to meat poisons, but when the intestine becomes diseased and colitis sets in, then there are little breaches in the mucous membrane which allow the poisons to pass through, and in such cases it is very important to hasten the food remnants along through the intestine so rapidly that there will be no time for putrefaction. That is the reason why bowel movements two or three times a day are of very great importance in most cases of chronic disease.

Q. Is raw milk laxative?

A. To some degree, because it develops acids in the intestine which are laxative in character.

Q. What is the cause of hay fever?

A. The pollen of plants. There are 125 different kinds of pollen which will produce hay fever. Even morning-glories will cause hay fever in some people. Different people have idiosyncrasies toward different plants.

Q. Is it good to take physical exercise immediately after meals?

A. Yes, for some people. If you have heaviness in the stomach or pain in the stomach, it is better to lie down on the back or the right side and take deep-breathing exercises. That is better than to take active exercises on the feet.

Q. Will a little salt fish in a New England fishball injure a person?

A. No, if he doesn't eat it. So long as the fish are in the fishball they won't do the least bit of harm; but when you take it into your stomach, the fish will undergo putrefaction; there are germs there which are all ready to set up putrefactive processes. The fish you find in the market are always swarming with bacteria; salt fish, particularly, are simply swarming with germs. The number is almost beyond estimate.

Q. What about the wholesomeness of buttermilk?

A. Buttermilk is more wholesome than ordinary milk for the reason that it is already curdled, and the curds taken into the stomach are broken up into minute particles, whereas when ordinary milk is taken into the stomach it forms large, hard, tough curds which often escape digestion.

Q. Is a high and dry climate good for rheumatism?

A. Yes, a high and dry climate is very good for rheumatism, and a properly balanced diet is still better.

ARRIVALS

THE following names were registered at the Battle Creek Sanitarium for the week ending November 19: Hans O. Sane, Minn.; F. R. Ahbe, Pa.; W. J. Lyons, Tex.; Jno. W. Moore, W. Va.; Dr. Ellen A. Taylor, Chicago; Mrs. W. H. Salman, Miss.; Walter O. Oswald, Rose W. Oswald, Wm. Burtlers, Pa.; Mr. and Mrs. H. Schwartz, Mich.; Fred H. Clark, F. C. Doepel, Detroit; Dr. E. A. McManns, Mich.; Henry E. Chase, Grand Rapids; Chas. H. Eaton, Mich.; Otto Boettcher, Mrs. Otto Boettcher, Minn.; Arthur Smith, Ill.; Benj. McDonell, Ill.; J. A. Mattox, O.; A. Benington, Chicago; A. C. Briggs and wife, O.; C. A. Andrews, New York; W. L. Morris, New York; J. Coal, Albion; Huntington Taylor, Minn.; Frank Brook, Mich.; E. C. Binder, N. Y.; Mrs. G. M. Shirk, Mr. G. M. Shirk, Chicago; Mrs. S. B. Yapple, O.; Mrs. E. A. Roache, O.; Mrs. C. H. Walker, Calif.; M. D. Keeler, Mich.; J. N. Vermillion, Ind.; Emily May Ely, Mich.; F. C. Haines, Ill.; Thomas E. Ludland, Pa.; John Hoffa, Pa.; T. W. Smith, wife and child, Okla.; J. F. Cullbreath, Colo.; Howard O. Rash and wife, Kansas; Mrs. W. C. Perry, Mo.; John W. Cummings, Chicago; M. Blumberg, Ind.; Jeff B. Webb, Detroit; Mrs. J. Coal, Mich.; H. N. Rankin, Ill.; Jas. Zeigler, wife and boys, Ind.; Geo. M. Tagg, Ind.; Mrs. A. A. Van Pelt, Chicago; Ruth Hemenway, Ill.; John V. Talan, Wyo.; F. H. Wellcome, Minn.; C. Waterman, Harriet Cochran, Minn.; Mrs. William B. Colver, Chicago; H. C. Neff, M. D., Ill.; Anna L. Baughey, Kans.; E. S. Davall, O.; W. G. Cowan, Montreal; A. M. Burns, O.; Mrs. E. W. Heyl, Pittsburg; Mrs. J. M. Brody, Pa.; J. H. Kaylor, A. W. McCracken, Penn.; J. E. Waganer, City; Mr. and Mrs. L. E. Phillips, Okla.; Mr. and Mrs. Clareneto Heyber, Ill.; Mrs. D. Harrey, Ia.; Mr. and Mrs. F. B. Taylor, Ind.; B. J. Hughes, Ga.; Miss Armstrong, Tenn.; Dr. W. S. Dohan, Minn.; G. M. Gress, S. D.; Mrs. J. C. Begg and child, Ont.; Peter C. Clemenson, M. D., Chicago; C. B. Stevenson, Ind.; Ellenor McGrahm, Gertrude McGrahm, Chicago; Rev. John H. Deming, Mass.; Mrs. Asa Ireland, Mr. Asa Ireland, Ind.; Emma G. Holloway, M. D., Ind.; Mrs. Esta Miller, Ind.; J. W. Young, Mich.; Miss Bertha Creek, Ill.; H. N. Butts, N. Y.; Geo. M. Tagg, Memphis; Ralph E. Keeler, O.; W. D. Maaske, Ia.; W. G. Frierson, Tenn.; Mrs. R. W. Clark, Tenn.; G. E. Bartholomew, Sarah E. Bartholomew, Tenn.; James H. Show, Ill.; A. Zunder,

Mich.; G. Ganderson, Nebr.; Mr. and Mrs. Colbers and son, Detroit; Agnes Hunt, Mich.; Mrs. Emily Shelden, Mich.; Mrs. H. Hatsman, Chicago; Samuel Try, Midland; Mrs. T. Griffin, Ga.; F. P. Howell, Ga.; O. Ross, John B. Ceal, Ind.; L. B. Sawyer, Mich.; F. C. Shafer, Detroit; John W. Covert, Mich.; Mrs. F. H. Clark, Detroit; J. P. Baker, O.; Charles Ware, Nebr.; Miss Anna Ware, Ill.; Mr. and Mrs. Shapiro, Chicago; John P. Hemmeter, Detroit; Albert B. Lord, Wash.; Rachel Jones, Kans.

News and Personals

Among missionary arrivals of recent date is Rev. John H. Deming, of Sharon, Mass., who has been laboring in China under the American Baptist Board.

The Thanksgiving union service is to be held in the Presbyterian church, and the sermon will be delivered by Rev. M. H. Garrard, of the Church of the Disciples of Christ.

The Question Box was opened on Monday evening by Doctor Riley in the parlor of the main building. There was a good attendance, and the questions covered a wide range of subjects.

At the vesper service on Sabbath afternoon, Miss E. E. Pohlé gave an excellent ad-



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dress on the seven names of Jehovah as found in the Scriptures, showing what circumstances gave occasion for the exercise of the divine attributes portrayed by the Jehovah titles, and drawing therefrom many helpful and comforting suggestions.

In the list of former patients who have returned for a course of treatment in the Sanitarium are Dr. Ellen A. Taylor, a physician of Chicago; Mrs. C. H. Walker, of Denver, Colo.; Mrs. J. O. McConnell, of Chester, W. Va.; Mrs. W. B. Colver, of Evanston, Ill.; Mrs. L. E. Phillips, of Bartlesville, Okla.; Mrs. E. W. Heyl, of Pittsburgh, Pa.

Mr. James H. Shaw, of Bloomington, Ill., a prominent Chautauquan manager, was the guest of the Sanitarium for a few days last week, during which time he became somewhat familiar with the Sanitarium methods of treatment and procedure. He expressed himself as delighted with his experience and amazed at the magnitude and excellence of the institution.

On Tuesday last the ladies of the Sanitarium W. C. T. U. spent a very pleasant social evening at the residence of Mrs. Merton W. Wentworth on Oaklawn avenue. Social intercourse interspersed with music and light refreshments combined to make a pleasant gathering and to promote that mutual acquaintance of the members of the association which formed the object of the pleasant occasion.

The Sanitarium Christian Endeavor Society held its usual meeting in the chapel on Friday evening. The meeting was in charge of Mr. W. C. Kellogg, and the address of the evening was a most stirring and helpful talk upon the study of the Bible. Much interest was expressed and several members took part in the discussion. The quartette rendered two fine selections which were greatly enjoyed.

The latest list of arrivals contains the names of Mrs. W. C. Perry, of Kansas City, whose little daughter Katherine is also taking treatment with her mother; Mrs. H. C. Rash, of Salina, Kansas; Mrs. R. W. Clark, of Shelbyville, Tenn.; Miss Harriet Cochran, of Benudji, Minn.; Mrs. Luther B. Yapli, of Chillicothe, Ohio; Miss M. MacAdams, of Chadwick, Ill., in which city she is a Bible teacher; and Mrs. Chas. Everson, of Chicago, Ill.

A fine entertainment for Thanksgiving evening is being prepared by the young people of the Sanitarium family. It is to consist of a presentation of "Miles Standish's Courtship" in pantomime. The poem will be read, and simultaneously characters in costume will enact the story. The exhibition will be assisted by a fine set of stereopticon pictures, and the stage will be lighted with the stereopticon light. A very beautiful and pleasing spectacle is in anticipation.

On Tuesday evening the Sanitarium orchestra under Mr. Drever gave a fine con-

cert in the lobby. Looking over the bright-faced crowd of people seated in the large lobby, and catching between the numbers cheery scraps of conversation and repartee, it was indeed difficult to believe that the individuals were nearly all suffering from some degree of ill health. The necessity of cheerfulness is thoroughly realized in the Sanitarium, and so successfully is the virtue practiced that it becomes quite contagious.

The sermon on Sabbath morning was preached by Dr. James Chapman, the president of Southlands College, of Battersea, London, England. Doctor Chapman based his discourse upon the words, "And the peace of God that passeth understanding keep your hearts and minds." Out of a rich and deep personal experience the preacher brought forth many truths that could not fail to stimulate and encourage the hearers, and forced home many lessons with such purity of diction and winsomeness of manner that they could not fail to be edified thereby.

Miss Ulrica Roreby, of Sweden, who for nearly three years has been in the Swedish manual and massage departments of the Sanitarium, has just sailed for Porto Rico with Mrs. W. Borda, whose husband is a man of large business interests in San Juan. Miss Roreby will care for Mrs. Borda in her own home, and continue there the methods of treatment under which Mrs. Borda has so greatly improved in the Sanitarium. Two sisters of Miss Roreby are still in the nurses' department of the Sanitarium; one is in training, and the other, a graduate nurse, is in the massage department.

An unusually large and responsive audience gathered in the gymnasium on Saturday evening to hear Miss Ruth Hemenway, of Bloomington, Ill., read Barrie's charming little story, "What Every Woman Knows." The interest was well sustained throughout the evening. Miss Hemenway preserves the personality of the characters to a remarkable degree, and her interpretation of Scotch characters is perfectly irresistible. So pleased was the Sanitarium family that a large delegation went the following evening to hear her read "The Sign of the Cross," at the First Baptist church of this city. Miss Hemenway leaves January 1st for the Pacific Coast to make her headquarters for the winter in Los Angeles.

The speaker at the service on Sunday evening was Rev. C. C. Talbot, who gave a graphic and interesting account of life and travel among the Hunanese. The province of Hunan is the latest one to be entered by missionaries, the first mission station having been planted there only twelve years ago, when the district was in a lamentable condition socially, morally, and financially. The Gospel is doing much to elevate these people; those who have become Christians have cleaned up their homes and made them more sanitary, and are in a progressive condition. Mr. Talbot and his wife read together the fifteenth chapter of John in the Chinese language. They have labored for several years

in Hunan under the United Evangelical Society.

In the list of returned patients we note with much pleasure the names of several of the former guests of the Sanitarium, among them being Mr. Hans O. Sané, a well-known farmer of Montevideo, Minn.; Mr. F. H. Clarke, an attorney of Detroit; Rev. McDowell, of Fairburg, Ill.; Mr. Joseph Zeigler, a business man of Anderson, Iowa, who is accompanied by his wife; Mr. J. L. Vermillion, a banker of Anderson, Ind.; Mr. Howard C. Rash, a manufacturer of Salina, Kans.; Mr. B. D. Hughes, a banker of Rome, Ga.; Mr. James H. Kaylor, of Greensburg, Pa.; Mr. L. B. Sawyer, an attorney of Ithaca, Mich.; Mr. Chas. Wolsham, a business man of Birch Run, Mich.; and Mr. Albert B. Lord, an architect of Seattle, Wash.

In this week's list of arrivals we note the following: Mr. W. S. Potter, Jr., son of Rev. W. S. Potter, of this city; Mr. Henry Schwartz, a business man of Bay City, Tex.; Mr. John W. Moore, with large business interests in Charleston, W. Va.; Mr. R. D. Muser, a business man of Little Falls, Minn.; Mr. F. C. Storpel, a merchant of Detroit, who is accompanied by his wife; Mr. Constant A. Andrews, a banker of New York; Mr. J. F. Callbreath, of Denver, Colo., secretary of the American Mining Congress; Dr. H. C. Neff, a physician of Ingham, Ill.; Mr. G. M. Gress, a retired business man of Sioux Falls, S. Dak.; Dr. W. G. Dolan, a physician of Cloquet, Minn.; Dr. Peter C. Clemens, a physician of Chicago; Mr. J. H. Wills, a real estate man of Amarillo, Tex.; and Mr. C. H. Cole, of Springfield, Mo., president of the United Iron Works Co.

One of the recent visitors to the Sanitarium was Mr. J. O. Pace, a well-known man of Bowling Green, Ky., and prominent in life insurance interests. Mr. Pace is an ardent admirer of Sanitarium methods of treatment and has greatly improved in general health during his course of treatment. He was especially happy in gymnasium work, where his enthusiasm was most contagious. He expressed himself as greatly pleased with Doctor Kellogg's idea of making the Sanitarium a "University of Health," and said: "I was so pleased during my first visit to the Sanitarium and learned so much about how to keep well, that I am here again for recreation and to get more information on this very important subject. It is hard to overestimate the good done in restoring health to invalids in this institution, but if I were to sum up the many benefits, I would put knowledge of health principles gained at the top of the list."

An experienced teacher, temporarily in Battle Creek, desires tutoring.

Specialist in Elementary Work, is qualified to keep children of the Sanitarium from falling too far behind their classes.

Good references from New York and Philadelphia private schools; Teachers' College, Columbia University; and Dr. A. J. Read, Sanitarium, Battle Creek. Inquire at the Sanitarium desk.

THE BATTLE CREEK IDEA

VOLUME IV
NUMBER FIFTY-TWO

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The Philosophy of Hydrotherapy

The Why and the How of the Use of Water
in the Healing Art as Practiced at
the Battle Creek Sanitarium

THE use of water in the treatment of disease is not of modern origin, but dates away back in the beginning of things. It is recently that it has been reduced to a well-defined science and practiced on rational principles; but as now understood the use of water in therapeutics is probably the most practical and potent agency known to the medical profession, and as such it is coming to be known by all intelligent practitioners.

It is not at all correct to denominate the Battle Creek Sanitarium a "water-cure," as that would indicate that it employed water exclusively in the treatment of the sick; whereas, the truth is that every known rational and natural agency is brought into requisition, and the use of water in therapeutics is but one of the measures employed.

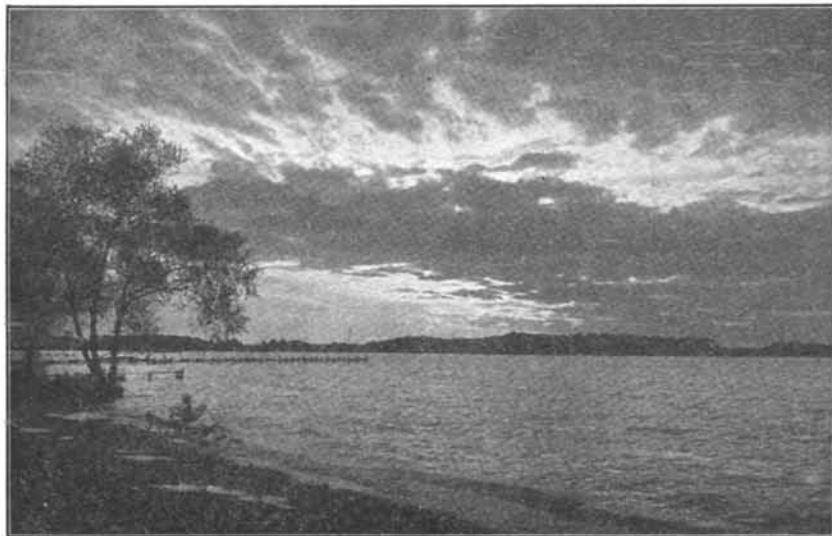
Water is valued in therapeutics because of its direct and indirect effects upon the system when applied externally and internally. It is well known that the body is composed very largely of this unstable element, and its presence is what gives suppleness and elasticity to the various members of the body. It forms the basis of the fluids of the body, and enters very largely into the composition of the nerve and brain and other soft tissues. It is an effectual depurant, washing away the heterogenous and feculent matters that accumulate in the body, as well as cleansing

(Continued on page four)

DISCOVERY AND DEVELOPMENT OF ELECTRICITY

Dr. A. J. Read Gives His Hearers a Brief
History of the X-Ray

CENTURIES ago Thales of Miletus discovered some little pieces of gum which had peculiar properties, and he named the substance electron. From this we have our modern word, electricity, and all that it means



A SCENE ON GULL LAKE NEAR THE SANITARIUM

has been largely developed since that time. It is true that before the days of Thales people saw the lightning and heard the thunder, and orators in the Forum would stop talking when a thunder storm arose, because of their great fear and superstition in regard to the thunder; but no one made any steps toward interpreting the wonderful phenomena. From the earliest days the aurora, which is really nature's great vacuum tube, has hung out in the heavens the very same phenomena which we have in the X-ray tube of modern times, and yet all the scientists from the earliest ages down to the days of William Crookes had scarcely

(Continued on page three)

Wonderful Provisions

For Destroying Poisons in the Human
Body—Dr. J. H. Kellogg in a Lecture
Explains the Functions of the Thy-
roid Gland, the Pancreas, Kid-
neys and Suprarenal Capsule

LAST week I spoke to you concerning the liver and its functions, one of which was to destroy the poisons that are absorbed into the blood. But the liver is not always able to do a thorough work in this destruction, and so there are other organs whose functions are along the same line, and which act as safeguards to the body.

There is a gland situated at the upper extremity of the trachea whose work it is to assist in disposing of the poisons which find their way into the system. This is

The Thyroid Gland,

which on account of its onerous duties and the dangerous nature of its work is liable to give us more or less trouble. The thy-

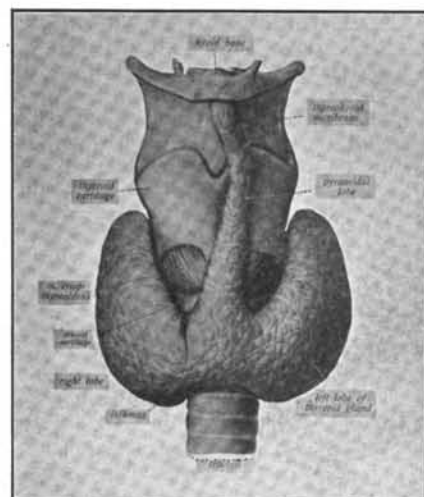
roid gland is an antitoxic gland which works at the same business the liver does, though it has only one branch of it. The business of the thyroid gland is to make a poison-destroying substance called thyroïdin, which helps to oxidize the subtle poisons that escape the liver. Very curiously, the thyroid gland of women is a little different in shape from that of men and sometimes larger, sometimes smaller.

We hear a great deal about Graves's disease, or exophthalmic goiter, that did not appear very often twenty-five years ago. This is a disease in which the thyroid gland enlarges, and becomes very active, and the heart becomes very active, and beats perhaps

140 or 150 times a minute. I have seen persons suffering from this disease with a pulse rate of 170. These patients are suffering from the results of the over-excitation of the thyroid gland, and when unduly and continuously excited, it enlarges. The thyroid gland becomes enlarged because it has worked too hard; and one particular class of poisons that overworks the thyroid gland is the poisons that are found in meat.

You Want to Know How We Know That.

I will give you a very good proof of it. In experiments to ascertain what is the function of the thyroid gland, some German investigators removed the thyroid gland from a number of dogs, and in a few weeks these dogs were dead. They soon began to have peculiar symptoms, and a little later they began to have convulsions and in a short time they were dead. Another investigator made the same experiment upon rabbits, and the rabbits did not die. The investigation was taken up again, and it was found that when



the thyroid gland was removed from dogs, and these dogs were fed upon rabbits' diet, they lived. The reason the rabbits did not die was because they ate no meat. When the dogs ate no meat, they did not die. That was a very significant fact.

The man who discovered that, unfortunately made no dietetic use of it, but went on eating his beefsteaks just the same. When I learned of that, some fifteen or sixteen years ago, I said, "That settles the meat question for me forever," because if a dog can live, and live all right on a diet of bread and milk and other things without meat, and when he begins to eat meat he dies, that is absolute proof that there is something in that meat, or that something comes from that meat which produces convulsions in that dog. It is also proof that a crippled body may be able to get along and to live under adverse conditions on a proper diet.

There is another very interesting thing I might tell you in this connection.

The Older Form of Goiter,

which has been well known for ages, in which there is an enlarged neck, and the goiter be-

comes filled with cysts, but without symptoms of exophthalmic goiter, had been studied for a long time, and it was not until very recently that it has been understood. It was thought at first it might be due to climatic conditions, and it was attributed to various causes. It is a very common disease in certain deep valleys of the Alps. I visited those valleys partly to study the subject there. They have people going about with enormous goiters. Men have goiters as well as women there, but the disease is most common in women. I saw one man on the streets with a goiter so large he had to have a band around his neck to hold it up. They are very proud of them, and they compare notes to see who has the biggest one, for in connection with this large gland there is mental depreciation. It has been found in recent years that certain wells in those regions, known as goiter wells, produce goiterous water, because people who drink the water get goiter. There is no doubt about it, because they took this water, put fishes into the water, and the fishes had goiters. They gave it to animals to drink, and they had goiters.

Another interesting gland is the pancreas, that lies behind the stomach, adjacent to the liver, with the spleen at one end and the liver at the other. The pancreas also has something to do with this poison-destroying function of the body, and the lymphatic glands and the spleen also work in the same business, and even muscles have something to do with destroying these poisons. So, the destruction of poisons is a function which is very largely provided for.

The Omentum

Another curious thing is a little apron that hangs down in front of the viscera just within the abdominal wall, commonly known as the omentum, which is a sort of apron attached along the lower border of the transverse colon and stomach, and hanging down over the intestines. Whenever I open the abdomen, as I have to do very often, I always look to see where this omentum is, because I expect to get some hint from it. The omentum is active in destroying poisons, and doing various other things. The omentum is called the abdominal doctor. If a man has appendicitis with pain in his side, when we make an examination, we find the omentum right down there in the corner, folded up there, and the rest of the viscera perhaps will be uncovered.

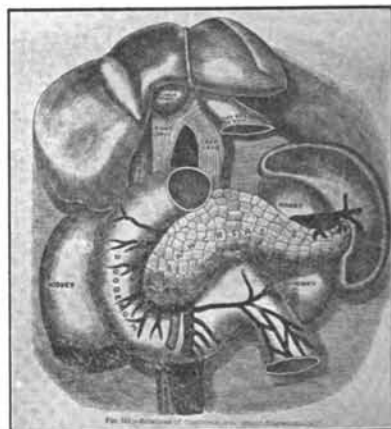
On one occasion I made an examination and did not see any omentum at all, but on further examination I found it stored away up in the upper abdominal region. I said, "There must be some mischief up there, or the omentum would not be up there;" so I went on investigating and found gall-stones. There had been no symptoms of them at all, but there they were, and the omentum was up there looking after them. The next case was a woman brought in from the city as a hopeless case. I made an operation hastily, hoping to save her life, but I found the gall-bladder was completely surrounded by the omentum, which held the gall-stones that were being discharged so that none of them

got into the abdominal cavity. In a few weeks that patient was perfectly well. There were 107 gall-stones in that case, and her life was saved by this wonderful omentum. There is a marvelous intelligence displayed by this very interesting little organ. It is useful also in destroying poisons.

But notwithstanding this wonderful provision made for the destruction of poisons, some of them are taken into our bodies. The process of eating and assimilation is the process of a food furnace. Eating is feeding the furnace, and the process of

Living is Really a Process of Burning.

The food is fuel which the body burns up, and the products are poisons just as smoke and ashes are poisons. The smoke goes out through the lungs, and some of the ashes are carried off through the kidneys. Some of these poisons are destroyed, as I have already indicated, but when we add to what the body itself makes other poisons like tea, coffee, condiments, alcohol, to which the civilized representatives of the human race have become so much addicted, the result is the



poison-destroying organs are overworked, they are worn out, and we become old prematurely, because poisons accumulate and other mischiefs occur.

Then There Are the Kidneys,

whose duty it is to carry off what is left of the poisons. Those that can not be destroyed in the body must be carried off in some way, and it is the duty of the kidneys to carry them off. At the top of the kidney is a small organ that we are beginning to hear a great deal about,—the adrenals or the suprarenal capsule. Its work is entirely different from that of the kidney, it is very similar to that of the thyroid gland. It works in conjunction with the thyroid gland, and each one does a part of a certain work in the destruction of poisons.

One particular thing this suprarenal capsule does is very interesting. Some of you have noticed brown spots on your hands; you have noticed sometimes brown circles around your eyes, have noticed perhaps a dingy complexion in your skin, and when you were bilious you noticed your skin took on a yellowish color, and you wondered why it was. This brown coloring matter is a poi-

son formed in the colon, known as Brenz catechin, a peculiar poisonous matter which is brown in color, and it is the duty of the suprarenal capsules to neutralize that particular poison. That is one thing they do. I do not think that is their primary duty, but they are capable of doing it, and so long as the suprarenal capsules are capable of destroying these poisons they keep the skin clear, fresh, clean and bright, in its natural complexion; but when the suprarenal capsules become diseased, then the poisons accumulate in the body, and the skin may become even a bronze color. In the disease known as Addison's disease, the suprarenal capsules become degenerated so completely that they cease their activity; then this brown coloring matter accumulates and the person becomes bronzed as an Indian.

A Peculiar Arrangement

In the circulatory apparatus of the kidneys we notice that the arteries are larger than the veins. In every other part of the body except this the veins have twice the capacity of the arteries, and there is high pressure in the arteries and low pressure in



FIG. 365.—Vertical section of kidney.

the veins. In the kidneys the situation is reversed, because the heart pumps the blood into the arteries, and the veins are simply like irrigating canals to carry away the blood that has been used. Here the arteries are twice as large as the veins, and the purpose of this is that the pressure in the blood will be twice as high as in other parts of the body so as to cause the liquid part of the blood to be forced out, as it passes through quite a long tube, where it is inspected by cells located all along the line, and these cells take out of the blood as it comes down all chlorid of sodium, which is in solution, and it is taken back into the blood, and the uric acid and urea and other poisons are poured out. It is necessary, then, that these arteries should be large, and when poisons are circulating through those arteries in great quantities, they become irritated, swollen, their walls are thickened, and they become degenerated; then the whole kidney becomes hard, and this hardening of the kidneys is chronic Bright's disease, and it is due to degeneration of these arteries, and the obstruction that comes in consequence

DISCOVERY AND DEVELOPMENT

(Continued from page one)

interpreted that wonderful phenomena of the heavens.

The Rarefaction of the Upper Atmosphere allowed the passage of the so-called static electricity and gave these various draped and fringed auroras which had been observed in various parts of the world. In fact, it would be a very interesting study to spend a whole evening showing the different kinds of aurora that have been observed and recorded. These are really the same kind of phenomena which we have in the Crookes tubes and in the X-ray tubes; but it is only modern science that has helped us to interpret them.

Some time after Thales discovered electron, Gilbert wrote his book on magnetism. He discovered that certain substances manifested the property of magnetism, which is a form of electricity. Almost immediately after Gilbert wrote his book, Otto von Goerich, who was really the Edison of ancient times, invented a machine for producing electricity. Von Goerich's machine was so interesting that he experimented with it day and night. It was a very crude affair, by which something like a huge glass rolling-pin was revolved against a silk curtain and by friction produced a small static spark. Von Goerich and his collaborator tried an experiment one day. Von Goerich himself was suspended from the ceiling by a silk cord. He had his attendant turn the machine very rapidly, and reached out his hand and touched it. The result was he received an electric spark in his finger. He begged to be let down, went immediately to his apartments, and was

Sick for a Week

from the effects of the excitement caused by the tiny spark that he received in his finger.

After von Goerich's time, advances were made in the study of electricity, the work of Galvani and Faraday contributing very largely to the advancement in early times. The story is told of Galvani that his wife was very sick, and he wanted to get her some special delicacy to tempt her appetite. He had been having researches in his laboratory for the purpose of discovering the soul. His great hobby was that there was existing a tangible soul that could be found and corralled in some way by science. On this day he bought some frogs' legs, and while preparing them for his wife, he happened to hang the saddles of the frogs' legs against the iron balcony, and as they touched the metal the legs were seen to jump. Immediately Galvani interpreted his observation as the discovery of the soul of the frog. This led him to experiment in his laboratory. His assistants did not have so much faith in his theory of the soul as he, but were interested in the new principle of energy, and Volta, who was his leading assistant, invented the

Volta's Pile,

a series of different metals with moist paper between them which were able to produce a galvanic current without any animal life in connection with it, and in that way proved it was not a soul at all, but was really a new force. Faraday by his coil took the initial

step toward making electricity a working force and foreshadowed the modern machinery for manufacturing electricity and electric force. We recognize now a variety of forms of electricity. We recognize the galvanic current, or constant current of electricity; we also recognize an induced current, which is practically the commercial current of to-day. We also recognize a static current, which is a special form of induced current of very high voltage and very small amperage, which is used therapeutically and was used in the early experiment with Crookes' tubes and the modern appliances which led up to an X-ray tube.

No less a man than Newton attempted to discover the secrets of electricity, but they remained hidden till the days of William Crookes, who brought out in his laboratory what led Edison to the modern principle of incandescent lighting within a vacuum, which has made it possible for us to illuminate our streets and buildings so beautifully, and has also contributed so much to modern science.

In the Modern X-ray Tubes,

the cathode or negative pole gives off the rays which strike against the anode or positive pole and are reflected out, penetrating substances which before were supposed to be opaque. We now know that there are various forms of radio-activity or ethereal energy that are much more penetrating than ordinary light. Some scientists claim that the ordinary rays of light are transverse rays, while the X-rays are longitudinal, and in that way are more penetrating. This is, however, purely a theory; there is no way to demonstrate its fallacy or its truth, but the fact remains that the X-ray is found to penetrate substances which are impenetrable to light.

A few days ago we had a book of some twelve hundred pages in the laboratory, and with the X-ray passing through it one could easily see the hand through all these pages of the book. Wooden materials are translucent to the ray. It is capable of penetrating through nearly all substances with the exception of the metals, and even some metals are quite translucent,—gold, silver and aluminum allow the passage of the ray with very little hindrance. Lead and iron are rather opaque to the rays, as are also some chemical substances, such as bismuth. Bone is opaque to the ray. Most of the tissues are partly opaque, and partly translucent, and the modern use of the X-ray takes advantage of the varying penetrability of certain tissues and substances so that we are able to recognize the shadow of an organ or a tissue by its density as well as by its shape, and we are able also to recognize various substances and foreign bodies by their density as well as their shape in the body.

When the X-ray first came into use, it was thought that its principal use would be for the study of fractures, and it has served very well that purpose. This was a great advantage to surgery, and enabled the setting of bones with much more accuracy than was possible before by mere compression and feeling of the fractures; but later progress in the development of this principle has greatly enlarged the field of usefulness of this mysterious agency. Its use in diagnosis

promises to become indispensable, as it will greatly aid in clearing away all uncertainty as to internal conditions by enabling the physician to take actual observation of many of the internal organs.

Not only in diagnosis but in therapeutics as well a great field is opening to the X-ray, in which its potency and efficiency are being demonstrated by the cure of many diseases which were formerly obstinate or incurable.

PHILOSOPHY of HYDROTHERAPY

(Continued from page one)

the skin. Its use as a diluent is a very essential consideration in the vital economy.

Its Indirect Influence

is due principally to the readiness with which it lends itself as a conductor of heat and cold. It is in this latter capacity that its use in hydrotherapy is principally found, though the direct uses of water are by no means ignored in hydrotherapy. The drinking of a proper amount of water is a matter of no small significance in maintaining or regaining health. Its absorption into the blood and its supply in adequate proportions to all parts of the body is a matter of no small importance.

As a means for conveying heat and cold to the body, the use of water has no compeer. Its action is decisive and instantaneous, its effects are natural and not injurious; it is a powerful stimulant, and not a poison; it encourages healthy and normal activities and conditions without destroying the most delicate tissues. It is cheap, convenient, always at hand, and leaves no unfortunate sequelæ, as is the case with many popular remedies.

All that is necessary is to have good, pure water without any foreign elements whatsoever. The question is often asked if the

Battle Creek Sanitarium

uses mineral waters; or, "What is the character of your springs?" Our waters are all water, pure and unadulterated. The purer they are, the better.

Water is used in conveying impressions of heat and cold in all stages from ice to boiling. Hot water in short applications is a stimulant; and cold water is the same. Hot water relieves pain as no other remedy will do except it be a poisonous opiate or narcotic. Water at a neutral heat has a sedative or soothing effect. Water applied to the exterior of the body affects the internal parts through the sensory nerves whose function is to convey to the parts impressions from the skin. Every internal organ or part of the body has an external "face" or section in which are the sensory nerves connecting the two regions.

There are about

Two Hundred Different Forms

of applying water in hydrotherapy, but the principles are few and simple and the objects are equally so. Heat may be applied in vapor or steam, or by means of cloths wrung out of hot water. Or it may be applied by hot water baths or sprays. These applications may be general or local. Cold may be

applied in the same manner or in the form of ice. The effect of short, sharp applications of cold is highly stimulating to the vital activities. They arouse the nervous system and the whole body is, as it were, alarmed to resist the invader, as cold is regarded by the body. The blood cells are increased, the heart is quickened, and vigor is imparted to all parts. On the other hand, the continued application of cold is a depressant. The application of water affects the circulation of the blood, the heart action, the stomach and its work, and is used to arouse a torpid liver. In fact, the adaptation of water in its different forms of application to effect changes and modifications of conditions is so universal that it acts a very important part in the treatment of most diseases known in materia medica.

Health Parables and Axioms

From a Lecture Delivered by Dr. J. N. Hurty, Secretary of the State Board of Health of Indiana, at Bay View, Michigan, August 16, 1911

THE large audience gathered in the big auditorium at 11 A. M. were more than delighted, as well as instructed, by what they heard. Doctor Hurty read from manuscripts a number of health parables which we are fortunately able to reproduce in full:

THE YOUNG MOTHER AND THE FAT HOG

Not a Fable—Simply Straight Goods

One time a little mother, only twenty-five years old, began to feel tired all the time. Her appetite had failed her before the tired feeling came. Her three little girls now became a burden to her. It was "mamma," "mamma," all day long. She never had noticed these appeals until the tired feeling came. The little mother also had red spots on her cheeks and a slight dry cough. One day, when dragging herself around, forcing her weary body to work, she felt a sharp but slight pain in her chest, her head grew dizzy, and suddenly her mouth filled with blood. The hemorrhage was not severe but it left her very weak. The doctor she had consulted for her cough and tired feeling had said, "You are all run down, you need a tonic." He prescribed bitters made of alcohol, water and gentian. This gave her false strength for a while, for it checked out her little reserve. When the hemorrhage occurred, she and all her neighbors knew she had consumption, and the doctor should have known it and told her months before.

Now, she wrote to the State Board of Health and said: "I am told that consumption in its early stages can be cured by outdoor life, continued rest, and plenty of plain, good food. I do not want to die. I want to live and raise my children to make them good citizens. Where can I go to get well?" The reply was: "The great Christian State of Indiana has not yet risen to the

Mighty Economy

of saving the lives of little mothers from consumption. At present the only place where you can go is a grave. However, the State will care for your children in an orphan asylum after you are dead, and then in a few years a special officer will be paid to find a home for them. But save your life!—never." "That is a cranky idea," for a member on the floor of the Sixty-fifth Assembly said so. "Besides," said he, "it isn't business, the State can not afford it." So the little mother died of the preventable and curable disease, the home was broken up and the children were taken to the orphan asylum.

A Big Fat Hog

one morning found he had a pain in his belly. He squealed loudly, and the farmer came to see what was the matter. "He's got the hog cholery," said the hired man. So the farmer telegraphed to Secretary Wilson, of the U. S. Agricultural Department (who said the other day he had 3,000 experts in animal and plant diseases), and the reply was: "I'll send you a man right away." The man came; he said he was a D. V. S., and he was. He had a government syringe and a bottle of government medicine in his hand-bag, and he went for the hog. It got well. It wasn't cranky for the government to do this, and it could afford the expense, for the hog could be turned into ham, sausage, lard and bacon.

MORAL: Be a hog and be worth saving.

THREE BROTHERS

The eldest of the three brothers was nine, the second seven, and the third five. They had come, the two younger ones, hold of hands, to the office of the State Board of Health to see what could be done for their mother. Montgomery, the oldest, said: "My mother is sick in bed with consumption, and Mrs. Homer told us to come and tell you, and you would tell us where to take her." "No," he said, in answer to questions, "we haven't any father; he died sixteen months ago of consumption. My sister, too, died of consumption, and I and my two brothers and mother are all there are. Yes, mother worked to support us. She sewed, and I was elevator boy at Smith's Block. I ain't doing nothing now, and we haven't anything to eat except what the neighbors give us. Please tell us where we can take mother. She coughs all the time, and—and—I am afraid—she's—going to die."

In imagination there appeared a picture of a true, good woman, fatally stricken with the great white plague. She lay on a miserably furnished bed in a bare room. Piece by piece it had been stripped of its furniture to procure food. The thin, transparent hands, pale, wan face, bright eyes and hollow cough haunted me without seeing them. Afterward, a visit and investigation proved that imagination had not run riot. Indeed, it had not pictured all. The last stage of the relentless disease had been entered, there remained but a few days for the mother who had given birth to four souls and who had fought a good fight. Between coughs and in

gasped whisperings she made no complaint, made no idle wishes, but expressed solicitation for the welfare of her children. They had come out of her life, she had worked all her life for them, and now when that life was on the eve of departure it was not herself but the boys, whom she had hoped to bring to useful manhood, of whom she spoke. The room was dark and damp, and the

Four Dollars a Month Rent

went to a man whose name was on the published list as paying taxes on \$100,000 and over. The window admitted the filth-tainted air from the back yard, and through the front door came the hot street air laden with infected dust.

Nothing could be done except to administer a dose of morphine to give temporary sleep with its oblivion to pain and care. It would be murder to give enough to hasten the permanent oblivion which was inevitable in a few days. Yes, it would be murder; and the law, silent and inactive before and during the killing by the preventable disease, would then tremble with activity. Detectives and police would hunt the murderer; the last cent in the county treasury would be spent to apprehend and convict him, and the economy quack would declare against "spending money for any such crank idea as preventing consumption."

"Please tell us where we can take mother." I might have replied in truth, "To the grave; that is the only place the great State of Indiana has for the reception of poor widows and little mothers with consumption."

CLAMS OR CHILDREN—WHICH?

Do we love clams more than children? If we do not, why did Congress without hesitation appropriate \$20,000 to pay experts to study clams, and almost unanimously turn down an appropriation of \$3,000 to pay an expert to study children?

The clam appropriation was passed in 1907, and early in 1908 the child appropriation was killed. In 1905, the State Board of Health presented to the Indiana General Assembly a new health law, which had for its object the conservation of human life. When the bill was up, a member arose and said: "I have been requested by my constituents, over and over, to vote for measures to protect hogs from cholera and trees from scale, but I have never been asked to vote for a measure to protect women and children from preventable diseases." Of course the bill was defeated as a crank bill. Had the bill been for hogs or clams, it would not have been cranky. The reason why the \$20,000 clam appropriation passed like greased lightning was because the pearl button makers want clam shells. We can not make anything but men and women out of children; therefore, Congress would not give any money for such an end. It is to be said that Secretary Garfield heartily endorsed the child appropriation, and when he made his argument before the Congressional Committee, a mighty member from the Sink-hole arose and asked, "Does this not approach dangerously near the line of encroachment upon the rights of States and municipalities?"

ties?" When will some people quit thinking it is cranky to protect the human family against disease? No one thinks it is cranky to protect hogs against cholera and trees against scale.

An Earnest Plea

The speaker earnestly exhorted his hearers to make a serious study of the question of health, especially of the preventive side of the question. Said he:

"Suppose an archangel should come to the world and offer to heal every malady; how quickly he would be beset by throngs of sick people anxious to be healed at any cost. The angel is really here, ready to heal all our maladies in advance, if we will only give attention to his teaching. The name of this angel is Hygiene. When Pasteur discovered the bacteria of infection, he made this startling announcement: 'It is now within the power of man to annihilate every infectious disease and to banish these maladies from the world.' We have the knowledge, and if all men everywhere could only be aroused to a sense of duty in relation to this matter, tuberculosis and every other infectious malady might be conquered and made to disappear."

Yellow Fever Has Been Conquered.

"Cholera, smallpox and malaria have been controlled, and we only need to apply our knowledge in a sufficiently thoroughgoing way to practically banish infectious and contagious maladies of all sorts from the earth. We bring most of our sickness upon ourselves by neglecting to obey the voice of hygiene. In olden days, if men spoke in behalf of truth and righteousness, they were persecuted. So in these modern days, if a man stands up to plead for hygiene and preventive medicine, for cultivating health instead of disease, immediately an outcry is made against him; he is a crank, and is laughed at."

"When the world gets through calling these reformers cranks and persecuting them, then we shall begin to make progress in the war against disease. If a man says, 'Do not load your alimentary canal up with putrefying material; in other words, avoid a high-protein diet, and so increase your vital resistance and diminish your liability to disease,' at once he is set upon and persecuted as a crank and a fanatic. The fact is, every morsel of meat before being eaten already contains the germs of putrefaction, and when it is swallowed into the intestine the putrefaction naturally continues. The excessive use of meat is unquestionably responsible for many of the maladies and for much of the degeneration from which we suffer."

"We must study our habits of life in their relation to health. We must make hygiene one of the chief subjects of study in our schools and colleges. In other words, we must prevent disease by avoiding its causes. Drugs are sometimes useful, but in general drugs are unwholesome and when frequently or continuously used do harm and do not cure. The real cure of disease is to be obtained by cultivating hygiene and by obeying the laws of health."



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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 topics.

QUESTION. What is the cause of gallstones?

ANSWER. Germs in the intestines.

Q. Deep breathing hurts the upper chest. What causes it?

A. Probably a sensitiveness of some of the nerves between the ribs. But you would better do the deep breathing just the same. A few hot applications on the spine or upper part of the back, or on the chest will probably relieve that pain.

Q. Why does one have a craving for desert after a meal?

A. It is purely a matter of habit. I always prefer to take my dessert the first thing, and I recommend people to do that. Take the things that have the best flavor at the beginning, then you won't be tempted to eat too much at the end.

Q. Is tuberculosis curable in a young person?

A. Generally it is. Most of us have had tuberculosis and gotten over it. It is one of the most curable of maladies. Probably not five per cent of the people in this room have not had tuberculosis. Examination of the body after death shows that nearly every person who is over twenty-five years of age has had tuberculosis in some form and recovered from it, not necessarily pulmonary tuberculosis. It is a disease which acts only upon persons who are reduced in vitality. It is dangerous for a person to be anemic, to allow his blood to be reduced below par; it is dangerous to live that way, because tuberculosis is likely to take advantage of the weakness and so produce a development of the bacteria and cause some form of tubercular disease. Cancer and other maladies are likely to seize upon us then, because the blood is the resisting element of the body; it is the blood that heals, it is the blood that repairs, builds, creates in the body; so when the blood is depreciated, our defensive powers are reduced.

ARRIVALS

The list of guests who have registered at the Battle Creek Sanitarium during the week ending Nov. 26, 1911, is as follows: C. H. Cole, Mo.; Chas. Wolohan, Mich.; R. Horwitz, A. Horwitz, B. Horwitz, O.; Wm. Burtless, Mich.; Leslie E. Fry, Chicago; Mrs. Olaf Espe, Ia.; Mrs. Chas. A. Thayer, P. R. Vail, Minn.; C. M. Campbell, Minn.; S. B. Hauley, Ia.; Mr. Russell, Ia.; Jos. Donleavy, N. Y.; Mr. and Mrs. Chas. Levy, Mich.; John Thimmes, O.; W. E. Thimmes,

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who you know would

like to have the in-

formation contained in **THE BATTLE CREEK IDEA**, and we will send them free of charge a few sample copies. Simply write their names and addresses in the blank spaces below, cut out the coupon and mail to us, and we will send the papers.

NAMES

ADDRESSES

O.; Miss E. M. Caven, Mich.; Mrs. W. W. Ballantine, O.; Geo. Malmke, Ia.; Mr. and Mrs. B. C. Strickler, Pa.; B. Creviston, O.; Mrs. D. E. Eaton, Mich.; Mildred G. Stundten, N. Y.; W. A. Field, Chicago; J. H. Levinson, Detroit; Mrs. Emma Wilbur, City; H. L. Wills, O.; Mrs. Jno. Binder, City; M. H. Slosson, Chicago; Frank L. Taylor and wife, Assumption; J. A. Sullivan, Ky.; I. U. Stephens, N. Y.; Wm. O. Colby, Chicago; J. W. Petett, N. Y.; Thos. Thomas, Chicago; R. G. Guise, N. Y.; Aug. C. Moeller, Wis.; James M. Gaar, Ind.; Edgar T. Welch, wife and son, N. Y.; D. A. McIntosh, Wis.; Geo. Halliday, Sault Ste. Marie; E. G. Lancaster, Olivet; A. H. Mills, Mich.; Geo. McPherson, Mich.; Jno. I. Starr, Mich.; S. J. Holden, Ill.; H. W. Brainard, Mich.; Mrs. and the Misses Farquharson, N. Y.; Wm. Davies, Detroit; Mrs. Fannie J. Sutton, Minn.; John Hoffa, Pa.; M. E. Adams, Detroit; S. C. Simmons, Okla.; Mrs. R. D. Musser, Minn.; Mr. and Mrs. H. W. Clark, Ill.; Mildred E. Thayer, Chicago; Wm. Bruckman, Mich.; W. C. Willard, O.; Rev. James Chapman, Eng.; Fred Cole, Mich.; Clement L. Webster, Ia.; J. H. Wills; Chas. B. Allen, Detroit; Miss F. B. Ricketts, Ill.; Mrs. Kemon Dunham, O.; Mrs. Marie Hickenlooper, Mrs. L. M. Littell, O.; Mrs. J. L. Fuelling, Mex.; Miss M. Valentine, New York City; Rev. W. R. Yonken, Mich.; P. O'Brien and wife, Ind.; E. K. Mohr, Chicago; Mrs. Wm. F. Dana, O.; Mr. and Mrs. A. W. Longley, Chicago; W. B. Curley, wife and son; E. W. Sinclair, wife and child, Kans.; Mrs. W. H. Rhamy, Miss Rhamy, O.; A. Zunder, Mich.; Dr. Z. Marx, Chicago; Horace M. Oren, Mich.; Chas. L. Mosher, O.; Ralph G. Wright, N. Y.; J. V. Byon, Mo.; W. O. Oswald, Pa.; C. W. Hensel and family, Detroit; Mrs. Alta Davis, Ill.; Mrs. Howe, Colo.; Henry H. Stiff, W. Va.; Geo. W. Perry and wife, Wyo.; J. R. Gentleman, H. S. Lambert, Pa.; Paul Nysens, Belgium.

News and Personals

A fine concert was rendered by the Sanitarium orchestra in the lobby on Saturday evening under the direction of Mr. William Drever.

Mr. and Mrs. W. B. Curley, with their little son, are spending a few days in the Sanitarium visiting their friend Colonel Morris, who is taking a course of treatment.

Mr. A. Zunder, a well-known man of large business interests in Kalamazoo, spent Sunday at the Sanitarium visiting his wife, who is taking a course of treatment in the institution.

Dr. W. H. Riley has been giving a very interesting and instructive series of lectures in the parlor upon the subject of "Foods." A digest of these lectures will appear in the next number of the IDEA.

Mrs. J. L. Fuelling, of Vera Cruz, paid a brief visit to the Sanitarium for the purpose

of traveling to Mexico with her mother, Mrs. Edson, who has been taking an extended course of treatment here.

One of the Battle Creek medical students, Mr. Ernest Pearson, has been elected president of the United Student Volunteer Bands of the Rush Medical College and the College of Physicians and Surgeons of Chicago.

President E. G. Lancaster, of Olivet College, recently spent a few hours at the Sanitarium between trains. Doctor Lancaster is a frequent visitor at the institution and is a staunch advocate of the value of hydrotherapeutic treatments.

Judge Horace J. Oren, of Sault Sainte Marie, made a brief visit to the Sanitarium during the week, where he was warmly welcomed by the management and the many friends whom Judge and Mrs. Oren made during their visit of last winter.

Mr. Myron E. Adams, of Detroit, an expert on social service, made the Sanitarium his headquarters during his stay in the city. Mr. Adams has had a very wide experience, having been superintendent of settlement work in New York, Cleveland, Chicago and Detroit.

Mr. C. W. Hensell, the executive secretary of the Laymen's Missionary Movement, who was accompanied by his wife and two daughters, was a guest of the Sanitarium during his recent visit to the city, when he participated in the four days' campaign of the "Men and Religion Movement" which has been held in Battle Creek.

Rev. Merle N. Smith, D. D., of Colorado Springs, has returned to his home, where he is pastor of a large Methodist church. Doctor Smith has for some weeks been taking a course of treatment in the Sanitarium and has returned to his home and duties greatly benefited by his visit here, and has also become a staunch friend and admirer of the institution and its methods.

A cornet band of twenty-two pieces has been organized by members of the Sanitarium family. The president is H. E. Province, and the leader of the band is Mr. William Drever. The new organization is being conducted with great spirit, is advancing rapidly in the character of its work, and hopes in a few months to be able to present some good music to the Sanitarium family.

As a sample of how our paper is appreciated we submit the following, taken from a personal letter out of many similar expressions: "The BATTLE CREEK IDEA is the most interesting paper I receive, and I felt I must visit the Sanitarium on my return from Canada, although I had only two days at Battle Creek. I found it well worth while and hope to return for a longer period. The rural walks in the vicinity are particularly charming."

Last winter Doctor Welch, of Westfield, N. Y., spent some weeks at the Sanitarium,

during which time he was visited by several of his relatives and friends. Upon one occasion Doctor Welch gave a very interesting talk in the parlor upon the food values of grape juice. Mr. Edgar T. Welch, who is associated with his father in the large manufacture of grape juice, is with his wife and little son now taking a course of treatment in the Sanitarium.

Mrs. Dora Eloise Eaton, of Benton Harbor, gave a reading in the parlor on Tuesday evening. The program was humorous and included selections from Eliza Calvert Hall's "Aunt Jane of Kentucky," and stories and child impersonations. Mrs. Eaton was graduated from the Detroit School of Elocution and English Literature, and the Chicago School of Dramatic Art. For several years she has taught the art of expression, and has been much in demand for readings.

The Sanitarium gladly welcomes Mrs. A. M. Farquharson and her daughters, the Misses Olive and May, who have returned for a course of treatment. Mr. Farquharson is a prominent attorney of Jamaica, W. I., and has large business interests there and in New York City. Both Mrs. Farquharson and her daughters are gifted musicians and many times last winter by their beautiful piano and violin music contributed to the pleasure of the Sanitarium guests.

In the parlor on Sabbath afternoon Mr. E. K. Mohr, of Chicago, gave a very helpful talk upon "The Glory of the Second Mile."



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He based his remarks upon the words, "If thine enemy compel thee to go with him one mile, go with him twain." He compared the first mile to duty and the second mile to the privilege of joyous, willing service in the Christian life. His illustrations were apt and forceful and frequently raised a smile when the speaker "hit the mark." Mr. Mohr was attending the Men and Religion Movement, of which he was one of the speakers.

The Sanitarium W. C. T. U. Association met on Tuesday night at the home of Mrs. Doctor Martin. The program for the evening was in charge of the Flower Mission, of which Mrs. M. W. Wentworth is the superintendent. In answering the roll-call, each member gave a quotation from a well-known author on temperance. Miss Shoe sang a beautiful solo, Miss Jeannette Martin recited "The Little Maid's Sermon," and an excellent paper was read by Mrs. Doctor Barnhart upon the life and work of Mrs. Cynthia Westover Alden. Thanksgiving offerings were brought by the various members to be distributed by the workers of the Flower Mission among the needy and suffering families to whom the Mission seeks to bring good cheer.

Friends of the late Dr. John F. Byington, the Sanitarium specialist in eye, nose and throat diseases, will be glad to hear that his son Donald has just been awarded a handsome prize of a set of United Editors' Perfected Encyclopedia, valued at one hundred and twenty dollars. This prize was awarded by the judges in the Calhoun County School Test, consisting of H. R. Atkinson, principal of Battle Creek high school; W. J. McKone, superintendent of schools, Albion; and A. H. Washburn, superintendent of schools in Marshall. More than one thousand papers were sent in by the school children in this literary contest, therefore a great deal of credit is due to the boy who won the first prize, and the Sanitarium congratulates Donald Byington upon his success.

A recent visitor at the Sanitarium was Mrs. Leona T. Field, who at the Milwaukee W. C. T. U. convention was appointed to the position of superintendent of the purity department. From Milwaukee Mrs. Field went to fill a series of lecture engagements in the Northern Peninsula, after which she went to the national headquarters of the W. C. T. U. for a two days' conference with the general officers of the movement. Enroute from Evanston to her home in Ann Arbor she spent twenty-four hours at the Sanitarium to confer with Dr. Carolyn Geisel upon questions pertaining to the purity work, and to obtain a list of purity publications. This information Doctor Geisel was well qualified to give, having been for many years associate superintendent of the rescue department of the W. C. T. U. and a close friend of Mary Wood-Allen and her estimable daughter Mrs. Rose Wood-Allen Chapman, whom Mrs. Field succeeds in the national organization.

This week's list of arrivals bears the names of several who have returned to the Sani-

tarium for course of treatments, among whom we notice: Mr. Charles Welsham, a business man of Birch Run, Mich.; Mr. L. B. Sawyer, an attorney of Ithaca, Mich.; Senator P. R. Vail, of Virginia, Minn.; Mr. John P. Hemmeter, of Detroit; Rev. N. L. Baumgartner, of Wheeling; Mr. F. L. Taylor, of Assumption, Ill.; Mr. D. A. McIntosh, a railroad contractor of Milwaukee; Mr. J. H. Livinson, a business man of Detroit; Mr. H. W. Clark, of Mattoon, Ill.; Mr. R. G. Wright, a manufacturer of Buffalo; Mrs. A. W. Loughy, of Chicago; Mr. F. H. Clark, of Detroit; Mr. B. C. Strickler, of Uniontown, Pa.; Mr. E. B. Hoff, of Maywood, Ill.; Mrs. J. H. Wills, of Amarillo, Texas; Mrs. F. J. Monahan, of St. Louis; Mrs. C. W. Fulton, of South Haven, Minn.

The Sanitarium libraries and reading-rooms are justly very popular places, and become more so as the cold weather comes on, making it necessary to spend more time within doors. The reading room on the second floor is a branch of the main library, which is located on the second floor of the College building. In the former will be found the most popular magazines and daily papers, a good selection of popular books, and some books of reference. This room is open daily and books may be drawn here from the main library or from the public library in the city by means of catalogues. In the main library a more complete list of books and periodicals may be found. These rooms are open from eight in the morning till nine in the evening, and are free to all members of the Sanitarium family. Courteous attendants are in charge, and Sanitarium guests are invited to avail themselves of the benefits of the reading-room and libraries.

An unusually interesting service was held by the Sanitarium Christian Endeavor Society in the chapel on Friday evening, under the leadership of Miss Winifred Way. Special music had been provided, which included a beautiful organ solo by Mr. Schively, a violin solo by Miss Babcock, and a duet by Mr. Wencke and Miss Zahn. Miss Way in her opening remarks emphasized the spirit of thanksgiving, and other speakers followed, telling the origin of the national day of Thanksgiving in this country and the benefits of its preservation to the country and of special reasons in individual experience why the gift and grace of thanksgiving should be cultivated. The chapel was in darkness save for the light at the reading desk, but as each speaker sat down a lighted candle was placed in his or her hand, and soon the whole room was dotted with blazing candles. It was a novel and striking way of forcing home the privilege and joy of being light-bearers for the Master.

Rev. W. Davies, of Cardiff, Wales, was a guest of the Sanitarium during the Men and Religion campaign. Mr. Davies has only lately arrived in this country from Wales. There he was in charge of a church in the city of Cardiff, and also acted as secretary of the great interdenominational organiza-

tion, the Federation of the Free Churches in South Wales, and also co-operated with the great revival recently experienced in that country. Last year, after the revival campaign conducted by Dr. J. Wilbur Chapman and Mr. C. M. Alexander in Cardiff, he was urged by a large body of Christians to head a movement for following up and spreading the work originated in the city, and gave up his pastorate to visit the churches of all denominations throughout Wales in order to stir them to active evangelistic work. After his arrival in this country, the Detroit Committee of Auxiliary towns secured his services as expert on evangelism. Mr. Davies has now joined the Presbytery of Detroit, having decided to remain in America for the present.

The opening banquet of the local Men and Religion Movement was held in the Sanitarium dining hall Thursday evening, November 23. About four hundred and eighty men were present, representing Battle Creek and the smaller surrounding towns. The purpose of the movement is to win the men and boys of the country for Christ and to enlist them in active, aggressive Christian work. The motto of the campaign is, "A task for every man, and every man at his task." The method of propagating the movement is to start with the large cities as a center of operation, reaching out to the smaller places adjacent to it. The message of the campaign is five-fold, viz.: Evangelism, Social Service, Missions, Boys' Work, Bible Study. The attendance at the banquet was larger than was expected, but the Sanitarium was prepared to care for all who came in a satisfactory way, and from the unnumbered compliments and expressions of delight it was evident that the men approved of the truly delicious repast in which flesh had no part. Sanitarium diet won many friends among our local citizens and those of nearby towns on this occasion.

Among recent arrivals we notice the names of Miss E. M. Caren, a graduate nurse of Jackson, Mich.; Miss M. Stunden, a graduate nurse of New York City; Mr. W. E. Ludwig, a retired merchant of Portland, Mich., who is accompanied by his wife; Mr. Henry G. Stifel, a prominent business man of Wheeling, W. Va.; Rev. W. R. Yonker, of Niles, Mich.; Mr. W. C. Willard, a banker of Columbus, Ohio; A. H. Classen, a real estate man of Oklahoma City; Mr. G. C. Simmons, a real estate man of Tulsa, Oklahoma; Mr. Chas. A. Morton, a retired business man of Fargo, N. D.; Mr. J. M. Garr, a manufacturer of Richmond, Ind.; Mr. John Winter, of Detroit, who is well known in real estate and insurance interests; Mr. A. H. Mills, a business man of Grand Rapids; Attorney August Miller, of Milwaukee; Mr. B. Creviston, a lumber dealer of Paulding, Ohio; Mr. C. J. Levy, a merchant of Bay City, Mich.; Mr. T. B. Hanley, of Des Moines, Ia., a well-known man in life insurance; Mr. C. H. Cole, president of the Husted Iron Works Co., of Springfield, Ohio; Mrs. K. Dunham, a practicing physician of Cincinnati, Ohio, who is accompanied by her mother, Mrs. Maria L. Hickenlooper.

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